ecology and environment, inc.
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International Specialists in the Environment

PRELIMINARY ASSESSMENT

DATE: October 30, 1987

PREPARED BY: Melanie Anderson and Beatrice Thys
Ecology and Environment, Inc.

SITE: Hewlett - Packard Microwave Semiconductor
350/370 W. Trimble, San Jose, CA 95131
Santa Clara County

TDD No: F9-8706-056

CAD No: CAT000611400

Site Description:

The Hewlett-Packard Microwave Semiconductor facility (HP) is a 175-acre site located at 350/370 West Trimble Road, San Jose, California, southeast of the intersection of Montague Expressway and Lafayette Street (see Figure 1, Site Location Map). The facility manufactures, assembles, and tests diodes, transistors, and integrated products. The entire site is fenced, and guarded 24 hours per day (1,2). Operational areas on this site are an integrated circuit facility, assembly and test areas, research and development facilities, high-reliability testing area, a small machine shop, and maintenance facilities (3). HP constructed the facility on former agricultural land in 1979 (4).

The manufacturing operations are centered in Buildings 90 and 91. Two storage sheds (SS90 and SS91) and a Common Service Building are located to the west of Buildings 90 and 91 (see Figure 2, Facility Map). Chemical wastes (e.g. potassium cyanide) are stored in 55-gallon drums in the north end of SS91. An acid neutralization system and a fluoride treatment system are located in the Common Service Building. Separate sets of tanks for collecting and holding influents to each treatment system are located in the basements of Buildings 90 and 91 and in an underground vault adjacent to the northwest corner of Building 91. Collection tanks for waste stripper are also located in the basement of each building. Several underground storage tanks are or have been on-site (see Figure 2). Nonvaulted tanks T1 and T4 contained gasoline and waste solvents, respectively. T4 was removed in 1984 and T1 in 1986. Vaulted tanks T2 and T3 each contain 12,000 gallons of fuel oil. Waste

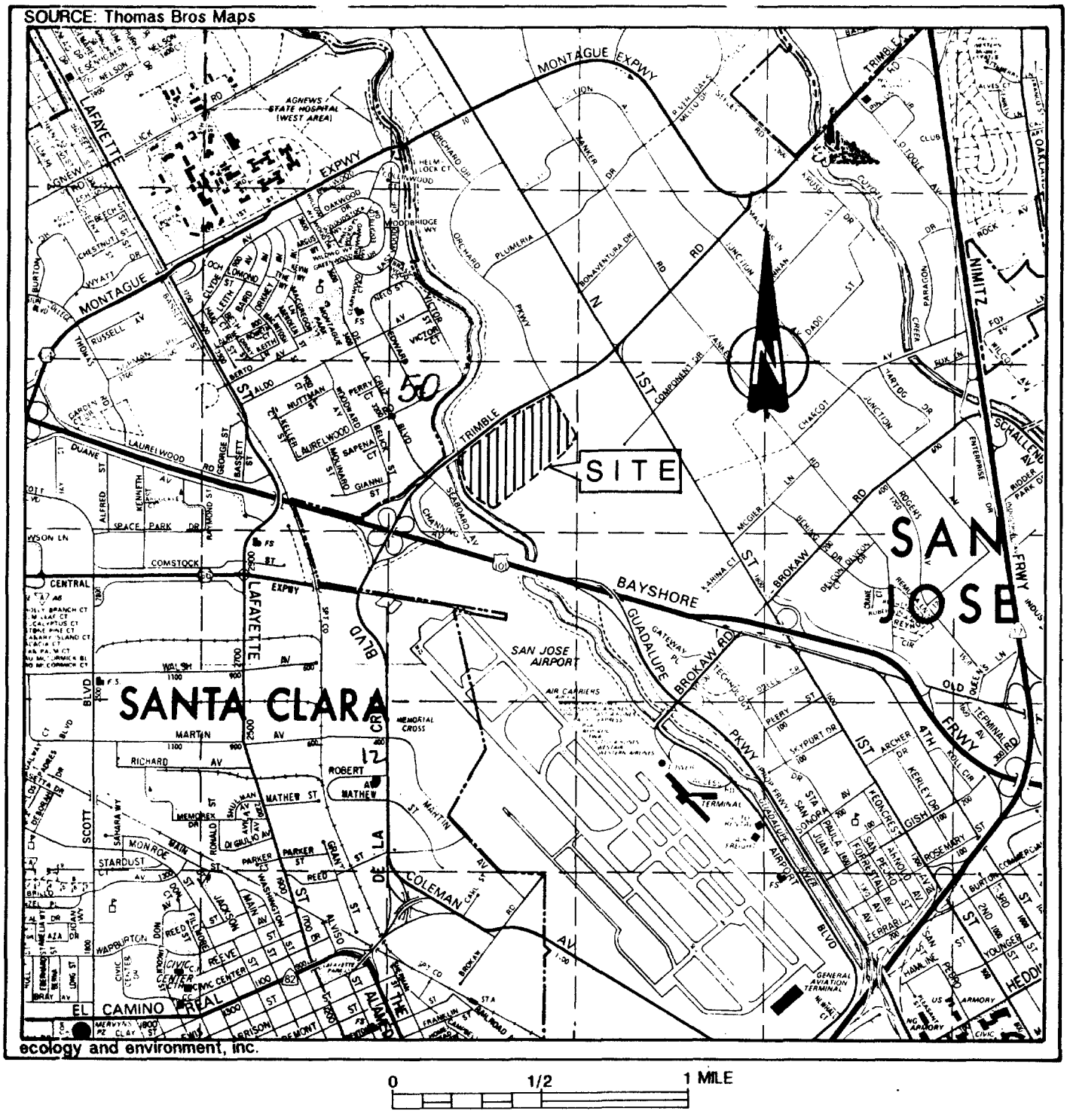
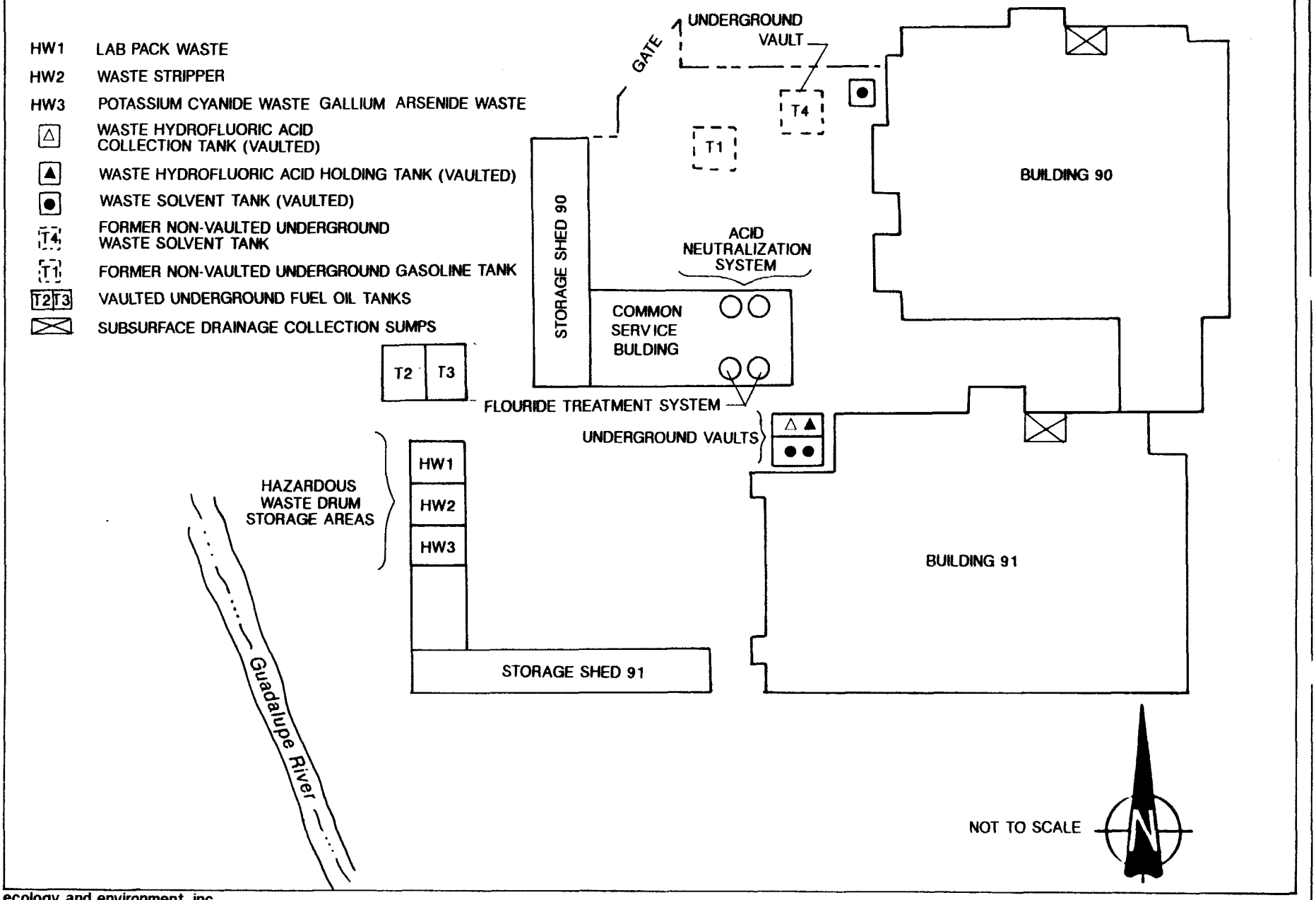


FIGURE 1
SITE LOCATION MAP

HEWLETT-PACKARD MICROWAVE SEMICONDUCTOR
350/370 WEST TRIMBLE ROAD
SAN JOSE, CA 95131

SOURCE: California DOHS Hazardous Waste Facility Permit Variance Applications, March 1983 and August 1985



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MICROWAVE SEMICONDUCTOR DIVISION

solvents are stored in two 1000-gallon vaulted underground tanks adjacent to Building 91 and in a 750-gallon vaulted underground tank adjacent to Building 90. In addtition, two sumps collect subsurface drainage from beneath the Buildings and discharge to Guadalupe River via storm drains (2,4,5).

Apparent Problem:

In 1982 the San Francisco Bay Regional Water Quality Control Board (RWQCB) instituted a leak detection program for all sites in the Santa Clara Valley with underground tanks (6). The information submitted by HP on the facility questionnaire indicated the presence of four underground storage tanks on-site. All had been installed in 1978 (7,8). Two of those listed were T2 and T3, the 12,000-gallon vaulted fiberglass tanks used to store #2 fuel oil. Also listed were T1, the 2000-gallon non-vaulted fiberglass storage tank (removed in 1986) which held unleaded gasoline, and T4, the 2000-gallon non-vaulted steel tank (removed in 1984) which held a mixture of waste solvents. According to information provided by HP on the questionnaire, the waste solvent tank contained the following (7,8):

Isopropyl alcohol	15-25%
1,1,1-Trichloroethane (TCA)	15-25%
Trichloroethylene (TCE)	5-10%
Acetone	20-30%
Methyl alcohol	5-15%
Butyl acetate	5-15%
Methylene chloride	5-10%
Xylene	0-5%
Oil	0-5%

Dipsticks were reportedly used periodically to check the levels of all tanks; no leaks were detected using this procedure (7).

RWQCB's protocol under its leak detection program was to require subsurface investigations at all facilities which reported solvent storage in underground tanks. However HP notified RWQCB that it was planning to install a 750-gallon vaulted storage system, and RWQCB subsequently allowed HP to delay the investigation until the removal of the 2000-gallon waste solvent tank, anticipated by HP to be in July 1983 (9,10).

The 2,000 gallon waste solvent tank was removed in 1984. Soon thereafter Applied Earth consultants (AE) conducted a subsurface investigation to determine whether soil in the excavated area was contaminated by the tank's contents. Two borings were drilled to a depth of two feet below the interface of the sand fill beneath the tank and the underlying native soil, a depth of approximately 12 feet below ground surface (11). Analytical Technologies, Inc. (AT) analyzed the samples using EPA Methods 624 and 625 for volatile and extractable organic compounds. The results were as follows (12):

Table 1. Results of Soil Sample Analyses-1984

Compound	Concentration in Soil (ppm) B-1	B-2	Limit of Detection (ppm)
Methylene chloride	0.6	0.8	0.1
Trichloroethene (TCE)	4.1	none detected	0.1
Di-N-Butyl phthalate	1.9	2.0	.25

Source: Applied Earth Consultants, 4/84.
(No other compounds analyzed for were detected).

At the same time, AE collected water samples from the drainage sumps below Buildings 90 and 91. Liquid from these two sumps flows through a single pipe to a storm drain believed to discharge into the adjacent Guadalupe River (13). These samples were analyzed for TCE, Trichloroethane(TCA), Dichloromethane, N-Butyl Acetate, Xylenes and 2-Propanol. Only TCA, at a concentration on 11.6 ppb, was detected in the sample from the Building 90 sump. The detection limit was 10 ppb (14). The recommended DOHS action level for TCA in drinking water is 200 ppb (15).

Three additional water samples were obtained during resampling by HP in June 1984: one from each of the drainage sumps below Buildings 90 and 91, and one from the storm drain containing water from both sumps (16). Samples were analyzed by the HP Analytical Laboratories (HP Labs) for TCE, TCA, dichloromethane and 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon TF). The limit of detection for TCA, dichloromethane, and Freon TF was 10 ppb, and for TCE, 5 ppb. HP Labs detected no contaminants in any of the samples (13,16). However, the RWQCB continued to express concern regarding the possible contamination of Guadalupe River by discharge water and considered issuing an NPDES permit to HP. It therefore requested HP to resample the sump water again and send the samples to an independent laboratory for analysis using EPA method 601 for purgeable halocarbons. AT performed the analyses and reported no detectable contamination (Detection limits were the same as those in the previous analyses by HP Labs)(1,14). Therefore, based on absence of detectable contamination in the repeat samples, RWQCB determined that HP did not require an NPDES discharge permit (1).

On June 5, 1986, the 2,000-gallon fiberglass storage tank was emptied of gasoline and cleaned and removed by International Technology Corporation (IT). The tank contents and rinsate were hauled to it's Vine Hill Class I facility for disposal (17,18). The San Jose Fire Department inspected the tank during removal, and reported that the tank showed no evidence of leakage, and the underlying soil had no staining or odor (15). A soil sample was taken from two feet below the level of the tank bottom, and analysis by IT showed no hydrocarbon contamination (19).

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A San Jose industrial waste inspector confirmed that HP has had no discharge violations and currently operates under a renewed wastewater discharge permit (10).

HRS Factors:

Observed Release:

Sampling conducted by AE indicated low levels of sump water contamination by TCA (11.6 ppb) and soil contamination by methylene chloride, TCE, and Di-N-Butyl Phthalate, all at levels below 5 ppm (see Apparent Problem Section (12,14). The presence of contaminants in soil represents the potential for contaminant migration to underlying groundwater. Groundwater was not encountered during subsurface investigations on-site; however the potential of an observed release to groundwater exists.

Direct Contact/Fire and Explosion:

The HP facility is fenced and patrolled 24 hours a day by security guards (1,2). DOHS facility inspections have discovered only minor violations such as the absence of National Fire Protection Association placards on some hazardous waste holding tanks during an October 1982 inspection (20). These violations were remedied (21). Hazardous waste drum storage areas are locked, with overflow catchment and drainage systems (2). No information was found in the facility files of the San Jose Fire Department, RWQCB, or DOHS which would indicate a threat to the public due to direct contact/fire and explosion.

Waste Type/Quantity:

In a letter accompanying its 1983 request for a Hazardous Waste Facility Permit variance, HP described the waste processing and storage systems as follows (10):

A) An elementary acid/base neutralization system neutralizes non-regulated metal-free acid and base process wastes from Buildings 90 and 91. The common service building holds the neutralization system, which operates in two stages. The material in the transfer tanks (in the basements of the two buildings) is pumped into the neutralization tanks, where it is treated with sodium hydroxide or sulfuric acid. The two neutralization tanks hold 5,200 gallons and are fiberglass-reinforced plastic. The pH of the material entering the neutralization varies from 2.5 to 11, and exiting material ranges from pH 6 to 9, averaging around 8. The neutralized material is discharged to the San Jose/Santa Clara Water Pollution Control Plant (WPC) (22).

B) A fluoride waste treatment system pretreats waste which is then forwarded to the acid/base neutralization system. Prior to 1983, fluoride waste from Building 90 labs flowed down drains to a collection tank and then into four fiberglass holding tanks in the basement of Building 90. Contents were hauled away every 20-25 days by IT for neutralization at an IT Class I disposal site (22,23). Since late 1983, concurrent with the completion of Building 91, the fluoride waste

treatment system has been in operation. Hydrofluoric acid and other acid wastes containing trace materials are still collected as described above in Building 90. Flouride wastes from Building 91 flow into an 800-gallon collection tank and a 5600-gallon holding tank in an underground vault in the northwest end of Building 91.

From both buildings, waste is pumped to the common service building, in which it is treated with a hydrated lime and $CaCl_2$ mixture at a 2:1 ratio. The resulting CaF_2 precipitates out as sludge, which is pumped to two sludge holding tanks and hauled away by IT. The high-pH decantate is tested for arsenic and fluoride, then pumped to the first stage of the acid/base neutralization system. Here it is tested along with the other acid/base wastes and finally discharged to WPC. The fluoride treatment process reportedly reduces initial fluoride concentrations of 5,000 to 6,000 ppm to less than 3 ppm in the decantate. Wastewater monitoring is conducted with monthly analysis of a 24-hour composite sampling for heavy metals and other constituents. Semi-annual tests are run for fluoride, phenol, arsenic, and other compounds, and the results forwarded to WPC to comply with discharge permit requirements (23).

Waste potassium cyanide, waste gallium arsenide, waste stripper, and lab packed wastes are stored in the hazardous waste drum storage area in Building SS91 (see Figure 2). Less than 55 gallons a month of potassium cyanide solution (approximately 7-17% Cyanide) is produced. IT Corporation vacuums the waste from drums and transports it to the IT Class I site for cyanide destruction and other treatment as necessary (2,23).

Lab-Pack materials, chemicals which cannot be disposed of in waste drains, are packed with vermiculite and stored in new 55-gallon drums specific to each waste category below. HP categorizes these materials as: corrosive, flammable liquids, poisons, oxidizers, and flammable liquid poisons. The amounts are described as "very low," and are stored in the locked hazardous waste storage area until removal by IT to the Chemical Waste Management Class I disposal site in Coalinga, California, for burial (22,23).

Groundwater:

The Santa Clara Valley is a large structural depression, filled with alluvial and lacustrine deposits. There are three groundwater sub-basins in Santa Clara County: The Santa Clara, Coyote, and Llagas. The northernmost, the Santa Clara, consists of a "confined zone" near San Francisco Bay and a "recharge zone" in areas further from the bay. The confined zone is characterized by a thick silty clay layer 100 to 200 feet below the land surface, which separates an upper aquifer serving most of the shallow private wells from the deeper confined aquifer on which most of the public wells rely. The approximate eastern boundary of this confining layer (which does not exist in the recharge zone) is located slightly over three miles east of the HP site (24). (i.e., HP is located in the confined zone) (24).

Municipal drinking water in the area is supplied by the Cities of San Jose and Santa Clara. The San Jose Water Company (SJWC) has approximately 150 active wells. The closest active well, (Breeding #1, 6s/1E-3D10) is located approximately one mile northeast of HP. Breeding #1 well is located in the SJWC Cambrian pressure zone which has 36,199 service connections. Ninety five percent of drinking water supplied to customers in the Cambrian zone is groundwater. The remaining 5% is imported from the South Bay Aqueduct via the Sacramento delta. Santa Clara wells supply 80% of the drinking water needs for a population of approximately 89,500 people; the remainder is from San Francisco's Hetch-Hetchy system (25,26,27). Groundwater was not encountered during on-site subsurface investigations; therefore depth to groundwater is unknown. Regional groundwater flow direction is to the northwest (1).

Net precipitation is 7.3 inches from November to April (28).

Surface Water:

The Guadalupe River is adjacent to the site, and apparently receives the discharge of sump water from HP. Calabazas Creek and Santo Tomas Aquino Creek are both located within a three-mile radius and downstream of the HP site. The RWQCB has outlined the beneficial uses of these three waterways in the San Francisco Bay Basin Plan to include: navagation; groundwater recharge; contact and non-contact water recreation; wildlife habitat; preservation of rare and endangered species; industrial service supply; and open commercial and sport fishing. None of these surface water bodies are used as drinking water sources (29).

The one-year 24-hour rainfall for the site area is approximately three inches (30).

Other Factors/Agency Involvment:

In March 1983 HP filed a request with DOHS for a variance from state permit requirements for its acid neutralization system and fluoride treatment system (4). A DOHS inspection was conducted on April 18, 1984, to confirm the site information HP had included in the variance request. It was noted that the two previous violations had be addressed properly and no violations were noted during this inspection (21). On June 22, 1984, DOHS granted the variance which enabled HP to operate the treatment units without a permit (31).

HP applied for another Hazardous Waste Facility Permit variance to allow on-site storage of potassium cyanide solution and a variety of lab-pack materials in small quantities for over 90 days (23) (see Waste Type/Quantity). The rationale behind the request was that the amounts of material specified were too small to meet the minimum requirements for pick-up and destruction or disposal by the contracted waste haulers (23). After discussion of the application with EPA, DOHS denied the application on the basis that the facility generates over 1,000 kg. of hazardous wastes per month and that the storage of that waste beyond 90 days is therefore subject to regulation as a RCRA Treatment, Storage, Disposal

Facility Federal RCRA regulations (5). HP currently transports wastes off-site in less than 90 days and therefore maintains generator status under RCRA (32).

HP was placed on "no action" status by RWQCB, the lead agency for this facility, as of January 25, 1985, because of the low level of contamination detected in soil and sump water samples. This status has not changed; "no action" status indicates that the facility is not required to conduct further site characterization work (1) (31) 32).

HP operates under Industrial Wastewater Discharge Permit # SJ-003A, issued by the San Jose/Santa Clara Water Pollution Control Plant. Compliance with monitoring regulations for this permit includes semi-annual sampling of wastewater by HP, and the forwarding of sampling results to WPC (4) (23).

It is unknown whether the site will qualify for inclusion on the National Priority List because of a lack of data to support a groundwater observed release or route score.

Conclusions/Recommendations:

HP has been operating as a manufacturing and assembly facility for diodes, transistors, and integrated products on West Trimble Road in San Jose since 1979. Hazardous wastes are generated from a variety of processes, and are either stored for shipment and disposal, or pretreated and discharged to the Santa Clara wastewater treatment facility. Discharge water is tested semi-annually for contaminants in compliance with wastewater permit regulations.

RWQCB included HP in its monitoring program of Santa Clara Valley facilities suspected of being sources of groundwater contamination. As a result of on-site soil and sump water analyses, RWQCB, the lead agency, determined that HP caused insignificant contamination and therefore classified it as a "no action" site; however, subsurface investigations did not include groundwater sampling on-site. It is unknown whether the site will qualify for inclusion on the NPL due to a lack of groundwater data. FIT therefore recommends no further action under CERCLA at this time, and that RWQCB reevaluate the site and require HP to conduct groundwater sampling.

2. FIT Review/Concurrence:

Martha Walters 11/10/87

3. EPA Recommendation for Further Action: No further action under CERCLA. Minor soil contamination, no evidence of gdwtr contamination. RWQCB should continue to monitor site to assure no future subsurface contamination. Gdwtr sampling is premature. Robertson 12/21/87

4. Response Termination: No Further Action X ; Active _____.

Justification: Concur. Paul F. Connett 12.30.87

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REFERENCES

1. Assessment of Contamination from Leaks of Hazardous Materials in the Santa Clara Groundwater Basin, 205 j Report - Technical Appendix: Case Summaries, San Francisco Regional Water Quality Control Board (RWQCB), SEEHRL, University of California, Berkeley, and Santa Clara Valley Water District, 7/85.

2. Supporting documentation for DOHS Hazardous Waste Facility Permit Variance for Hewlett-Packard Company, 8/26/85.

3. RCRA Part B Permit Application; Hewlett-Packard Microwave Semiconductor, CAT6114, no date.

4. Request for DOHS Hazardous Waste Facility Permit, Variance for Hewlett-Packard Company, 3/15/83.

5. Contact Reports, Sandy Szabat and Julie Noffke, FIT, to Gail Brownell, HP, 10/14/87, 10/28/87, 10/30/87.

6. Groundwater and Drinking Water in the Santa Clara Valley: A White Paper, DOHS, RWQCB, Santa Clara County Public Health Department, Santa Clara Valley Water District, EPA, 10/5/84.

7. Facility Questionnaire, Hewlett-Packard Company, CAT00611400, RWQCB San Francisco Bay region.

8. Facility Questionnaire, Hewlett-Packard Company, CAT061440, RWQCB San Francisco Bay region. Appendix 1 to #6.

9. Contact Report, Sandy Szabat, FIT, to Don Eisenberg, Eisenberg Olivieri Associates, 11/2/87.

10. Letter from Jerry Thorne, HP, to Nick Brabander, DOHS, 3/15/83, and attachment A.

11. Subsurface Investigation by Applied Earth Consultants, 4/84.

12. Volatile Organics in Soil and Base/Neutral Compounds in soil samples, I.D.# 01-000821, Analytical Technologies, Inc., no date.

13. Letter from Susan Miller, HP, to Donald D. Dalke, RWQCB, 7/9/84.

14. Laboratory Analysis Report, Samples #90 and 91, HP, 3/14/84.

15. Drinking Water Action Levels Recommended by DOHS, 1/87.

16. Laboratory Analysis Report, Samples #1,2 and 3, HP, 6/26/84.

17. Letter from Timothy B. Anenson, IT-Martinez, 6/13/86.

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18. Letter from Gail Brownell, HP, to Mike Randolf, San Jose Fire Department, 9/30/86.

19. Letter from Patricia L. Murphy, IT-Santa Clara, to Timothy B. Anenson, IT-Martinez, 6/13/86.

20. Letter from Charles A. White, DOHS, to Jerry Thorne, HP, 1/12/83.

21. Hazardous Waste Compliance Report, HP, DOHS, 4/18-19/84.

22. Industrial Discharge Permit for HP, SJ-003A, October 3, 1982, San Jose/Santa Clara Water Pollution Control Plant.

23. Request for DOHS Hazardous Waste Facility Permit Variance for Hewlett-Packard Company, 8/26/85, and attachments.

24. Assessment of Contamination from Leaks of Hazardous Materials in the Santa Clara Basin 205j; report, RWQCB et al, 7/85.

25. Adrian, George, Engineer of Water Quality, San Jose Water Company, Letter to Dan Schwartz, EPA Regional Administrator, 7/18/84.

26. Contact Report, Tom Beer, FIT, to Luane Schnelle, City of Santa Clara, 4/6/87.

27. Letter from Scott Yoo, San Jose Water Company, to Tom Beer, FIT, 10/15/87.

28. Climatic Atlas of the United States, U.S. Department of Commerce, June 1968, reprinted 1983.

29. Contact Log, Julie Noffke, FIT, to Dennis Ely, Santa Clara Valley Water District, 9/17/87.

30. Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C., 1963.

31. Contact Report, Sandy Szabat, FIT, to Charlene Williams, DOHS, 10/23/87.

32. Contact Report, Julie Noffke, FIT, to John Dover, EPA Computer Sciences Corporation, 10/16/87.

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PRELIMINARY ASSESSMENT CONTACT LOG

Facility Name: Hewlett-Packard Microwave Semiconductors

Facility ID: CAT000611400

Name	Affiliation	Phone	Date	Information
Joe Afong	San Jose Fire Department Hazardous Materials Section San Jose, CA		9/10/87	File sent.
	San Jose Assessors City Hall, 5th floor San Jose, CA		9/10/87	Parcel Number for HP is 97-45-021. The owner of this parcel of land is HP company.
Martita Jenung	DOHS	(415) 540-3487	9/24/87	RCRA Part B file not found.
Elizabeth Cameron	RWQCB	(415) 464-0825	9/25/87	As minor contamination is present, HP is currently a "no action" site; she had no site history information or updates.
Janet McCarron	San Jose Water Pollution Control Dist.	(408) 945-5300	9/8/87	See Contact Report.
Dennis Ely	Santa Clara Valley Water District	(408) 265-2600	9/17/87	Surface waters (including the Guadalupe Slough, Stevens Creek, Calabazas Creek and San Tomas Aquino Creek) in the Sunnyvale area are not utilized as drinking water.

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PRELIMINARY ASSESSMENT CONTACT LOG

Facility Name: Hewlett-Packard Microwave Semiconductors

Facility ID: CAT000611400

Name	Affiliation	Phone	Date	Information
Don Eisenberg	Eisenberg Olivieri Associates	(405) 653-0996	11/1/87	See Contact Report.
Gail Brownell	Hewlett-Packard	(408) 435-4183	10/14/87	See Contact Report.
			10/28/87	See Contact Report.
Gail Brownell	Hewlett-Packard	(408) 435-4183	10/30/87	See Contact Report.
John Dover	Computer Sciences Corporation	(415) 974-8346	10/16/87	HP is listed as a generator only for EPA RCRA Status.
Charlene Williams	DOHS	(415) 540-3051	10-23-87	See Contact Report.

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CONTACT REPORT

AGENCY: City of San Jose Water Pollution Control District

ADDRESS: 700 Los Esteros Road, San Jose

PERSON CONTACTED: Janet McCarron, Senior Industrial Waste Inspector

PHONE NO: (408) 945-5300

FROM: M. Hourigan

TO: CERCLIS file

DATE: 9/8/87

SUBJECT: Permit Renewal for HP and Compliance Record

Ms. McCarron confirmed the renewal of HP permit to discharge from their 350/370 West Trimble Road facility. She wasn't able to confirm whether the permit was exactly for the same discharge since it is confidential information and a letter from HP would be required to release the information. HP Has had no violation of discharge on their permit.

j/ma/hp/pa

CONTACT REPORT

AGENCY: Eisenberg Olivieri Associates

ADDRESS: 6214 Florio Street
Oakland, CA

PERSON CONTACTED: Don Eisenberg

PHONE NO: (415) 653-0996

FROM: Sandy Szabat

TO: CERCLIS File

DATE: 11-2-87

SUBJECT: RWQCB Policy for requiring subsurface investigations beneath waste solvent tanks.

Mr. Eisenberg was employed at RWQCB during the time that RWQCB facility questionnaires were distributed and evaluated.

Mr. Eisenberg indicated that RWQCB required that a subsurface investigation be initiated beneath all unvaulted underground storage tanks that contained waste solvents.

The investigations consisted of one soil boring, starting from as close to the bottom of the tanks as possible and extending for 30 feet beneath the tanks. Soil samples were collected and analyzed for volatiles. RWQCB required installation of monitor wells if groundwater was encountered in the 30-foot boring.

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Ref #9

CONTACT REPORT

AGENCY: Hewlett-Packard Microwave Semiconductor

ADDRESS: 350/370 W. Trimble
San Jose, CA 95131

PERSON CONTACTED: Gail Brownell

PHONE: (408) 435-4183

FROM: Julie Noffke

TO: File

DATE: 10-14-87

SUBJECT: SITE HISTORY

HP began construction of the facility in 1978 with completion probably in 1979. HP has occupied the building ever since. Prior to that time; the site was farmland.

- The 2,000-gallon solvent tank was removed in 1984.

- The Guadalupe River is located adjacent to the site.

j/ma/hp/pa

CONTACT REPORT

AGENCY: Hewlett-Packard

ADDRESS: 350 W. Trimble Road
San Jose, CA 95131

PERSON CONTACTED: Gail Brownell

PHONE: (408) 435-4183

FROM: Sandy Szabat

TO: CERCLIS file

DATE: 10-28-87

SUBJECT: Status of Hazardous Waste Drum Storage in Storage Shed 91

DOHS denied HP's request for a variance to store drummed hazardous waste (e.g. potassium cyanide and lab-pack wastes) in excess of 90 days without a storage permit, so I asked Ms. Brownell if HP intended to apply for a storage permit. She responded that HP is shipping these wastes in less than 90 days so as to maintain status as a RCRA generator (instead of a RCRA storage facility).

j/ma/hp/pa

CONTACT REPORT

AGENCY: Hewlett-Packard

ADDRESS: 350 W. Trimble Road
San Jose, CA 95131

PERSON CONTACTED: Gail Brownell

PHONE: (408) 435-4183

FROM: Sandy Szabat

TO: CERCLIS file

DATE: 10-30-87

SUBJECT: (1) Hazardous waste collection and storage at HP; (2) Fluoride treatment system and acid neutralization system; (3) Locations of subsurface drainage collection sumps.

Ms. Brownell related the following:

1) Waste solvents are stored in tanks in underground vaults. One 750-gallon waste solvent tank is in a vault adjacent to the northwest side of Building 90; two 1000-gallon waste solvent tanks are in a vault adjacent to the northwest side of Building 91.

Waste stripper (mixture of TCA, other solvents, and organic acids) is collected in a 300-gallon tank in the basement of Building 90 and is then pumped into the 750-gallon waste solvent vaulted tank. In Building 91, waste stripper is collected in two 150-gallon tanks in the basement. These tanks are drained into 55-gallon poly drums, which are then transferred to a hazardous waste drum storage area in SS91. Waste potassium cyanide, waste gallium arsenide, and lab pack wastes are packaged in drums and stored (in separate sections) of the drum storage area in SS91.

2) In Building 90, waste hydrofluoric acid (contaminated with heavy metals) is poured (under hoods) into lab sinks, flows through lab drains to a 500-gallon collection tank and then to four 1200-gallon holding tanks, both located in a bermed area in the basement. The holding tanks contents are then pumped over to the fluoride treatment system in the Common Service Building. The fluoride treatment tank has a capacity of 5600 gallons. Treatment is done in batch. The two sludge holding tanks each have capacities of 2600 gallons. Building 91's waste hydrofluoric acid flows through lab drains to an 800-gallon collection tank, and then to a 5600-gallon holding tank, both located in an underground vault adjacent to the northwest side of Building 91. The holding tank contents is pumped as described above.

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Metal-free waste acid/waste caustic collection and holding tanks in the basements of Building 90 and 91 are identical. Waste acid/waste caustic (uncontaminated by heavy metals) flows into a 300-gallon collection tank and then to a 2,200-gallon transfer tank. Waste in the transfer tank is pumped to the two-stage acid neutralization system in the Common Service Building. Treated effluent is discharged to the sanitary sewer under permit from the local water pollution control district.

3) The subsurface drainage collection sumps are located on the north sides of Buildings 90 and 91.

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CONTACT REPORT

AGENCY: DOHS-Emeryville

ADDRESS: 2151 Berkeley Way, Annex 7
Berkeley, CA 94705

PERSON CONTACTED: Charlene Williams
Senior Hazardous Materials Specialist

PHONE: (415) 540-3051

FROM: Sandy Szabat

TO: CERCLIS file

DATE: 10-23-87

SUBJECT: California DOHS permit requirements for HP

HP had applied for a variance from state permitting requirements for its acid neutralization system and fluoride treatment system in March 1983. I contacted Ms. Williams to check on the status of HP with DOHS.

Ms. Williams responded that DOHS granted HP a variance from state permitting requirements for its acid neutralization system and fluoride treatment system on June 22, 1984. Therefore DOHS regulates HP (350 West Trimble Road, San Jose) as a generator only.

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Reference # 31

CONTACT REPORT

AGENCY: City of Santa Clara

ADDRESS:

PERSON CONTACTED: Luanne Schnelle

PHONE: (408) 984-3183

FROM: Tom Beer

TO: File

DATE: 4/6/87

City wells supply drinking water to the City of Santa Clara. Population served is approximately 89,500 from a 27-well integrated system. 20% of the drinking water supply is imported surface water from Hetch Hetchy Project.

Reference # 26

HEWLETT PACKARD

ATTACHMENT A

COMPONENTS GROUP - SAN JOSE SITE
• 350 West Trimble Road, San Jose, California 95131, Telephone 408 263-7500

SUPPORTING DOCUMENTATION FOR VARIANCE REQUEST

1. DESIGN

a) Potassium Cyanide Solution: Collected in NEW 55-gallon steel
b) drums with Poly drum inside (DOT-6D, with Poly DOT-2SL).

LAB-PACK Material: Collected and overpacked with vermiculite in NEW 55-gallon steel drums (DOT-17H, Open-Head).

c) Both of the above materials are stored in dedicated storage areas away from the main production buildings. Both storage areas consists of a locked fence in the front; concrete block walls on the remaining three sides and a roof. Both areas are well ventilated; equipped with lights and emergency showers. The floors are painted with a chemically resistant epoxy coating and sloped for spill collection. See ATTACHMENT #1 for Map of dedicated storage areas.

d) See ATTACHMENT #2 for Map of waste facility location relative to company property lines.

2. WASTE CHARACTERIZATION

a) Potassium Cyanide Solution: CN: 68,000 - 170,000 ppm with traces of As and 2-Propanol.

b) Volume Generated: < 55-Gallon/Month.
Dedicated Storage Area: For eight 55-gallon drums, with room for expansion.

c) This solution is compatible with GaAs Slurry (Ga Reclaim Material), which is stored in same dedicated storage area.

a) LAB-PACK Material: This is chemical products that cannot be disposed of in one of our normal waste drains. We collect from pass-throughs or on a will-call basis from various process areas. This material is segregated by compatible hazard class (See ATTACHMENT #3).

b) Volume Generated: Very, very low. We may get 1 Qt. or 1 Gal. of a material and wait months before we get more that can be over-packed in the same outer drum. We have dedicated storage for one 55-gallon drum for each of the material listed on ATTACHMENT #3, with room for expansion.

c) This material is compatible with other containers of waste in the same storage area - see ATTACHMENT #1.

3. PROCESSES

a) Potassium Cyanide Solution: 95% from III-V Wafer Fab Backlap Operations, and 5% from EPI's Junction Staining Station.

b) GaAsP wafers are Lapped with DI Water, Aluminia Grit and Rust Inhibitor and then Etched in a Potassium Ferricyanide solution in a sink under a vented hood. After the material is spent, it is drained directly into a 5-gallon polyethyene container, where it is picked up and transferred to a DOT-6D with Poly DOT-2SL drum inside in our Toxic Waste Storage area.

Reference #2

HEWLETT PACKARD

COMPONENTS GROUP - SAN JOSE SITE • 350 West Trimble Road, San Jose, California 95131, Telephone 408 263-7500

3. PROCESSES (Continued)

b) EPI Junction Staining Station - The solution used is a mix of Potassium Ferricyanide, Isopropyl Alcohol and DI Water, which is collected in a 10-gallon waste tank built under the sink, with vented hood. Toxic Waste Handlers pick this tank up when less than ½ full and transfer to a DOT-6D drum with Poly DOT-25L drum inside in our Toxic Waste Storage area.

c) IT Corp. vacuums from drums and transports to their Class 1 Site for cyanide destruction and other treatment, as necessary.

a) LAB-PACK Material: Is generated mostly from our Wafer Fab Operations, due to process changes or material becoming out-of-spec because of date, etc. Some material comes from our R&D Labs, where the material has been brought in-house on a trial basis.

b) After pick-up by our Toxic Waste Handlers, the material is taken to our Toxic Waste Bay, where it is classified and segregated for compatibility and hazard class. Description of the material, container size and amount is recorded. The material is researched for components and %'s for use when preparing HW Manifest. Only compatible material of the same hazard class is overpacked in an open-head DOT-17H 55-gallon steel drum in its original container with enough vermiculite to absorb 110%. Maximum of 5-gallon per container, with a 20-gallon limit per 55-gallon drum. The drum is properly marked and labeled for disposal.

c) We currently ship this material to a Class 1 Disposal Site for land-fill.

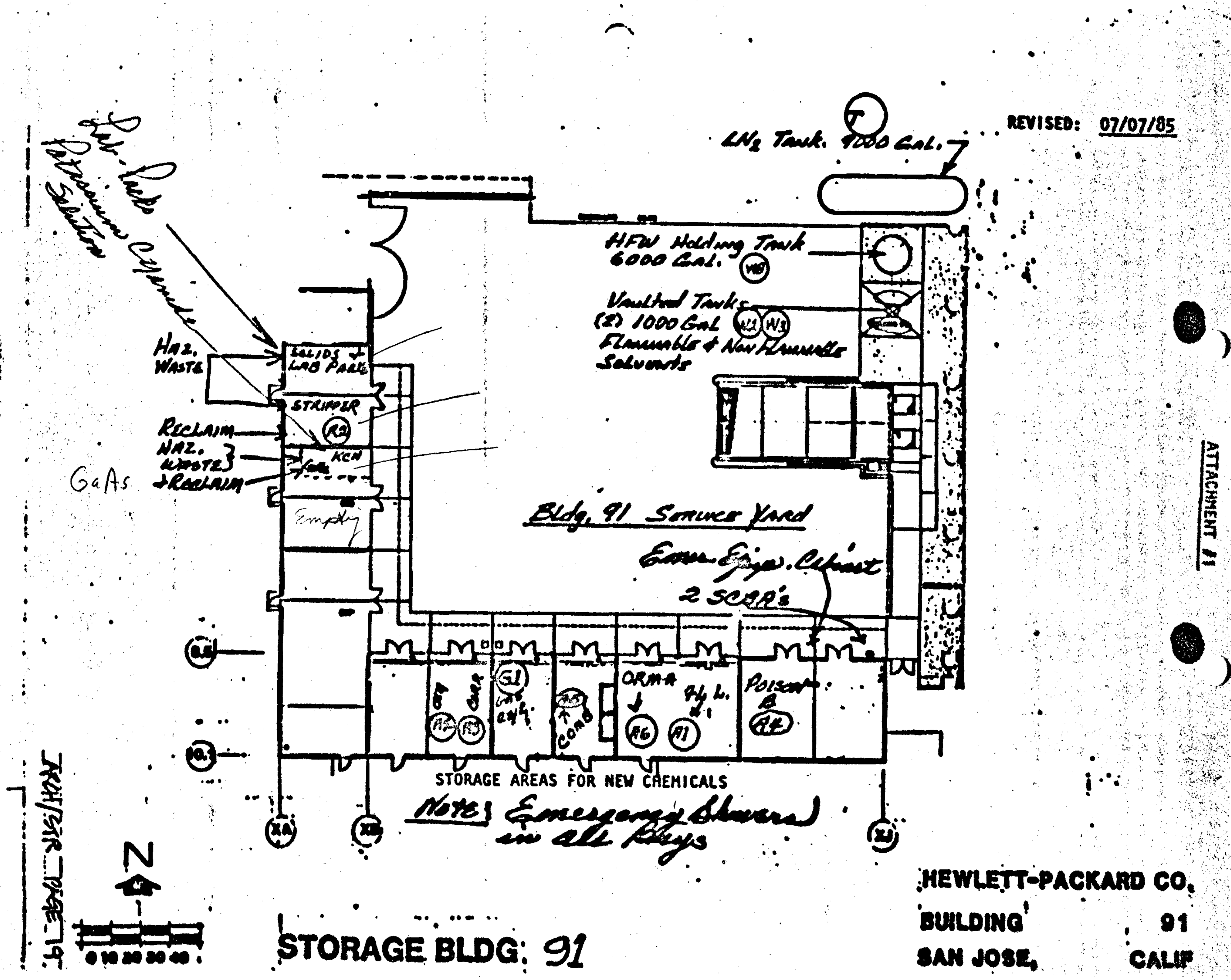
4. OPERATIONAL PROCEDURES

a) The entire San Jose Site is fenced, with 24-hour Guard Service. In addition the designated storage areas consists of a locked fence, with Hazardous Waste sions posted on the fences in both English and Spanish.

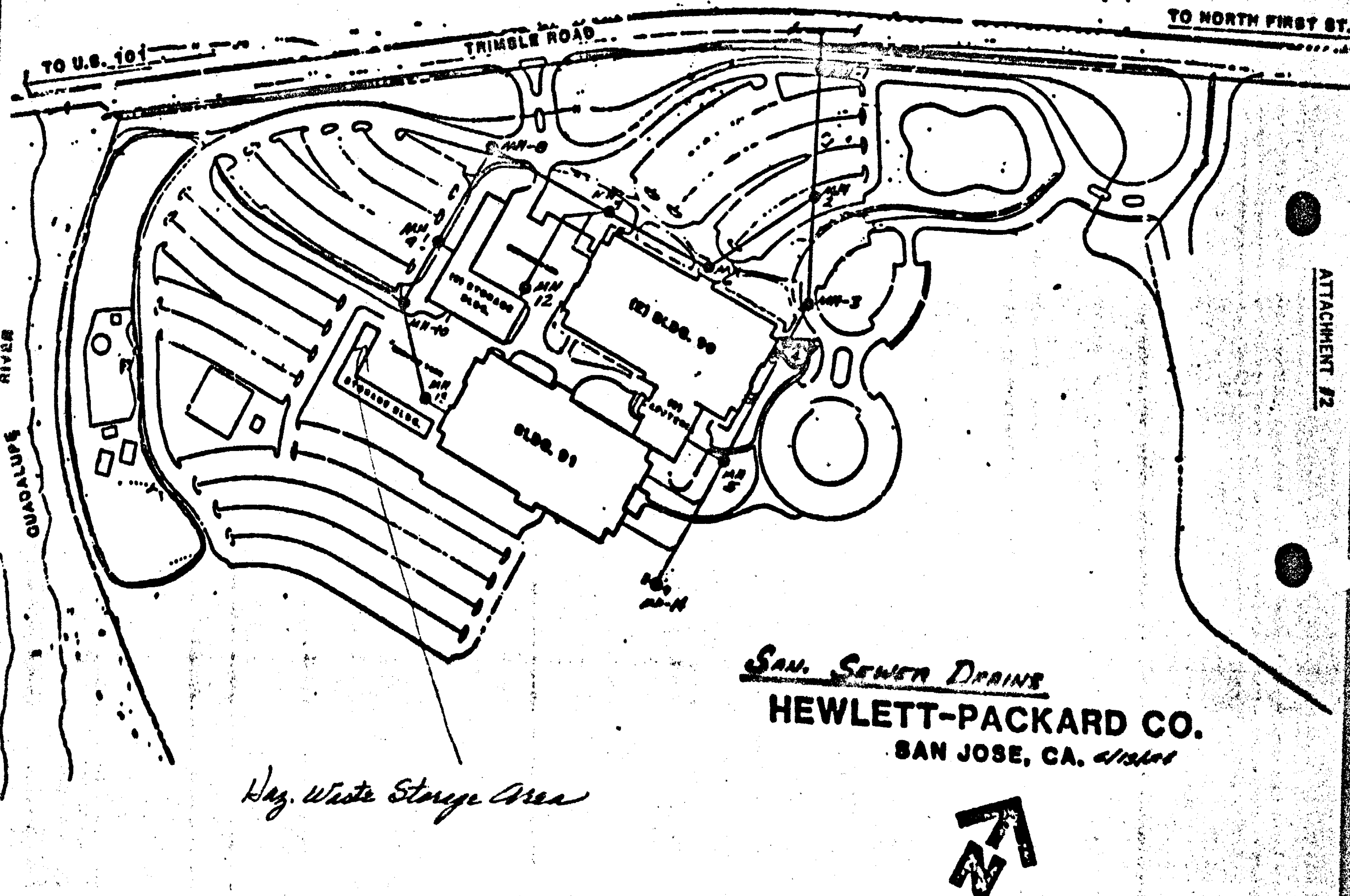
b) Toxic Waste Handlers have been trained in Chemical Handling, Toxic Waste Disposal - Marking, Labeling, Packaging, as well as Emergency Procedures. We provide them with protective clothing, i.e.: Safety Shoes/Boots, Gloves, Tyvek Suits, Filter Respirators, etc.

Plan View - See ATTACHMENT #2
Process Flow Diagram - See ATTACHMENT #4

HLK:se
Attachments


ATTACHMENT #1
REVISED: 07/07/85
LN2 Tank. 9000 Gal.
HFW Holding Tank 6000 Gal.
Vaulted Tanks (2) 1000 Gal Flammable & Non Flammable Solvents
Bldg. 91 Service Yard
Emer. Equip. Cabinet 2 SCBA's
Lab-Packs
Potassium Cyanide Solution
HAZ. WASTE
RECLAIM
HAZ. WASTE & RECLAIM
GaAs
SOLIDS & LAB PACKS
STRIPPER
KCN
Empty
ORMA
POISON B
CORR
STORAGE AREAS FOR NEW CHEMICALS
Note: Emergency Showers in all Bays
N
0 10 20 30 40
STORAGE BLDG. 91
HEWLETT-PACKARD CO.
BUILDING 91
SAN JOSE, CALIF
ARCH/STR PAGE 19.

ATTACHMENT #2



ATTACHMENT #3

CATEGORY #2

PROCESSES #7 THRU #13
DOT-17H (OPEN-HEAD DRUMS)

HAZARDOUS WASTE (DRUMMED LAB-PACKS)

NOTE: THIS MATERIAL IS COLLECTED FROM PASS-THRUS DAILY OR ON WILL-CALL BASIS AND LAB-PACKED IN THEIR ORIGINAL CONTAINER WITH ENOUGH VERMICULITE TO ABSORB 110%

PROCESS #	PSN, HAZARD CLASS, UN/NA#	LABEL(S)
PROCESS #7	CORROSIVE LIQUID, N.O.S., CORROSIVE MATERIAL UN1760	CORROSIVE
PROCESS #8	FLAMMABLE LIQUID, N.O.S. FLAMMABLE LIQUID UN1993	FLAMMABLE LIQUID
PROCESS #9	POISONOUS LIQUID, N.O.S., POISON B UN2810	POISON
PROCESS #10	OXIDIZING MATERIAL, N.O.S., OXIDIZER UN1479	OXIDIZER
PROCESS #11	HAZARDOUS WASTE, SOLID, N.O.S., ORM-E NA9189	
PROCESS #12	HAZARDOUS WASTE, LIQUID, N.O.S., ORM-E NA9189	
PROCESS #13	WASTE FLAMMABLE LIQUID, POISONOUS, N.O.S., FLAMMABLE LIQUID UN1992.	FLAMMABLE LIQUID POISON

MAY 8, 1985

WASTE MANAGEMENT SUMMARY: SAN JOSE SITE COMPONENTS GROUP

CONTAINERIZED WASTE

WASTE STREAM	WASTE COMPONENTS	ON SITE COLLECTION	ON SITE STORAGE	OFF SITE DISPOSAL
CONTAMINATED SOLIDS -wipes, gloves, clothing spill materials	Surface or adsorbed contaminants: As, Acid, Solvents	from process areas in bags by waste handlers and janitors- daily/ weekly	DRUMS	Burial- CWM site Coalinga, CA Class I Haz. Waste Landfill
LIQUIDS IN CONTAINERS -usually one gallon (LAB-PACK MATERIAL)	PHOTO RESIST, Oxidizers, Used or Outdated chemicals	from pass throughs and on will call basis by waste handlers	Lab Packed in DRUMS	Burial- CWM Site Coalinga, CA
DRUMMED LIQUIDS	STRIPPER	emptied from 3 holding tanks (2-120 gal & 1-300 gal)	into DRUMS	Incinerated Systek Cement Kiln S. California
	POTASSIUM CYANIDE	5 gal. containers in process area	emptied into drums	CN Destruction at IT Corp Il. CA
	PHOTORESIST (+/-)	from pass throughs in one gallon bottles	emptied into DRUMS	Recycled Solvent Services San Jose, CA

Gail Brownell
Site Environmental Engineer

ATTACHMENT #4

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FACILITY QUESTIONNAIRE
(use separate questionnaire for each facility address)

I. COMPANY NAME: HEWLETT-PACKARD COMPANY
MICROWAVE SEMICONDUCTOR DIVISION

II. FACILITY ADDRESS: 350 WEST TRIMBLE ROAD
SAN JOSE, CALIFORNIA 95131

III. EPA I.D. NUMBER (RCRA) (if applicable)
CAT000611400

IV. Does the facility have any of the following items? If so, please quantify.

A. underground non-waste storage tanks

1. vaulted	yes X	no	number 2
2. non-vaulted	yes X	no	number 1

** B. underground waste storage tanks

1. vaulted	yes	no X	number
2. non-vaulted	yes X	no	number 1

C. treatment units (tanks or sumps)

1. vaulted tanks	yes	no X	number
2. non-vaulted tanks	yes	no X	number
3. concrete sumps	yes	no X	number
4. other	yes	no X	number

D. underground piping* - in inspection gallery

1. gravity	yes	no X	estimate length
2. pressure	yes	no X	estimate length

E. underground piping* - buried

1. gravity	yes X	no	estimate length 42'
2. pressure	yes X	no	estimate length FUEL OIL 120' SUPPLY 120' RETURN

JUN 08 1982

* except water, natural gas, electrical or domestic sewage (i.e. not chemical or industrial waste)

**Underground waste solvent tank will be abandoned and an above ground tank installed as soon as construction standards and ordinances are finalized.

Reference # 7

V. Has the facility had any of the following items which have been removed. If so, please quantify.

A. underground non-waste storage tanks

1. vaulted yes_____ no X number_____

2. non-vaulted yes_____ no X number_____

B. underground waste storage tanks

1. vaulted yes_____ no X number_____

2. non-vaulted yes_____ no X number_____

C. treatment units (tanks or sumps)

1. vaulted tanks yes_____ no X number_____

2. non-vaulted tanks yes_____ no X number_____

3. concrete sumps yes_____ no X number_____

4. other yes_____ no X number_____

D. underground piping* - in inspection gallery

1. gravity yes_____ no X estimate length_____

2. pressure yes_____ no X estimate length_____

E. underground piping* - buried

1. gravity yes_____ no X estimate length_____

2. pressure yes_____ no X estimate length_____

VI. For each item in IV and V above please provide the following information if known, as an attachment to this questionnaire. SEE APPENDIX #1

1. Size (gallons, cubic feet)

2. Construction materials of each unit

3. Schematic of unit showing; distance from ground surface to top and bottom of unit and attached piping.

4. Plot plan showing location of all units and relevant buildings.

5. Specific composition of materials which unit holds. Use the most recent chemical Abstract Service Name and number (if known) or chemical name (not trade name).

* except water, natural gas, electrical or domestic sewage (i.e. not chemical or industrial waste)

6. Year unit installed, year unit placed in operation and, if applicable, removed. 1978

7. If flow-through treatment unit list daily volume

8. Describe any corrosion protection provided to unit and nature of monitoring this protection.

9. Describe any regular procedures used to determine the integrity of the unit and the results of these procedures.

10. Describe any repairs made to these units which could be indicative of some failure of the units integrity.

VII. If you indicated that you have or had either a:

- non-vaulted buried waste solvent tank without corrosion protection which was placed in operation prior to January 1, 1975; or,

- concrete sump into which solvents were or are being discharged for the purpose of storage, treatment, separation or disposal

you are required to immediately implement an investigation program to determine if the unit(s) described in this section are or have been leaking (see page 2 of letter of transmittal).

_____ A. Yes, I have a unit(s) described in this section and I intend to implement an investigation program.

_____ B. Yes, I have a unit(s) described in this section but I do not intend to implement an investigation program for the following reasons:

__X__ C. No, I do not have a unit(s) described in this section

VIII. This questionnaire shall be signed below as follows:

A. In the case of corporations, by a principal executive officer at the level of vice-president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates, or

B. In the case of a partnership, by a general partner, or

C. In the case of a sole proprietorship, by the proprietor, or

D. In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

This questionnaire has been completed under penalty of perjury and, to the best of my knowledge, is a true and correct.

Signature: W.B. Wholey Date: 5/27/82

Printed Name: W.B. Wholey

Title: VP Phone: 415-857-2345

Vice President, Corporate Services

Contact name (if different from above): JERRY T. THORNE, P.E.

Title: MANAGER, SAFETY & HEALTH AND ENVIRONMENTAL ENGINEERING Phone: (408) 263-7500 X2302

APPENDIX 1

A. TANK NUMBER T1 - Gasoline Storage Tank

1. Size - 2,000 gallons
2. Construction Materials - See Attachment #1
3. Schematic of Unit showing; distance from ground surface to top and bottom of unit and attached piping - See Attachment #2
4. Plot Plan showing location of all units and relevant buildings - See Attachment #3
5. Specific Composition of Materials which unit holds - Unleaded Gasoline
6. Year Unit installed and placed in operation - 1978
7. If Flow-through Treatment unit list daily volume - N/A
8. Describe any Corrosive Protection provided to unit - See Attachment #1
9. Describe any Regular Procedures used to determine the integrity of the unit and the results of these procedures - Check level with Dip-Stick. No leaks noted.
10. Describe any repairs made to those units which would be indicative of some failure of the units integrity - None

B. Tank Numbers T2 and T3 - Fuel Oil Storage Tanks

1. Size - 12,000 gallons each
2. Construction Materials of each unit - Fiberglass, Owens-Corning
3. Schematic of unit showing; distance from ground surface to top and bottom of unit and attached piping - See Attachments #4 and #5
4. Plot Plan showing location of all units and relevant building - See Attachment #3
5. Specific Composition of materials which units hold - #2 Fuel Oil
6. Year Units installed and placed in operation - 1978
7. If Flow-through treatment units, list daily volume - N/A
8. Describe any corrosive protection provided to unit - Fiberglass Tanks
9. Describe any regular procedures used to determine the integrity of the units and the results of these procedures - Level checked with Dip Stick periodically. No leaks detected.
10. Describe any repairs made to these units which could be indicative of some failure of the units integrity - None

C. TANK NUMBER T4 - Waste Solvent Storage

1. Size - 2,000 gallons
2. Construction Materials of unit - See Attachment #1
3. Schematic showing; distance from ground surface to top and bottom of unit and attached piping - See Attachment #6
4. Plot Plan showing location of all units and relevant buildings - See Attachment #3
5. Specific Composition of materials which unit holds -

Isopropyl Alcohol	15-25%
I,I,I - Trichloroethane	15-25%
Trichloroethylene	5-10%
Acetone	20-30%
Methyl Alcohol	5-15%
Butyl Acetate	5-15%
Methylene Chloride	5-10%
Xylene	0-5%
Oil	0-5%

6. Year Unit installed and placed in operation - 1978
7. If Flow-through treatment unit, list daily volume - N/A
8. Describe any corrosive protection provided to unit - See Attachment #1
9. Describe any regular procedures used to determine the integrity of the unit and the results of those procedures - Level checked with Dip Stick three times per week. No leaks noted.
10. Describe any repairs made to the unit which would be indicative of some failure of the unit's integrity - None

ATTACHMENT #1

CONSTRUCTION MATERIALS AND PROTECTION
GASOLINE TANK (T1) AND SOLVENT WASTE TANK (T4)

I. GASOLINE DISPENSING SYSTEM (T1)

A. Steel Pipe and Fittings:

Schedule 40 black steel pipe and malleable banded fittings with swing joint assembly.

B. Gasoline Tank:

2000 gallon capacity fiberglass tank. Tank, piping and accesories, including ballast slab, to be as detailed on drawings.

II. SOLVENT WASTE SYSTEM (T4)

A. Galvanized Steel Pipe and Fittings:

ASTM Specification A-120 pipe with ASTM Specification A-47 Grade 32510, 150 lbs. galvanized, banded, malleable threaded fitting for steel pipes 2-1/2" or smaller. Flanged pipe and ASTM Specifications A-126, Class B, 125 lbs. galvanized cast iron fittings for 3" pipe or larger.

B. Copper Pipe and Fittings:

ASTM Specifications B-88, Hard Drawn tubing with ANSI Standard B16.22 wrot copper fittings.

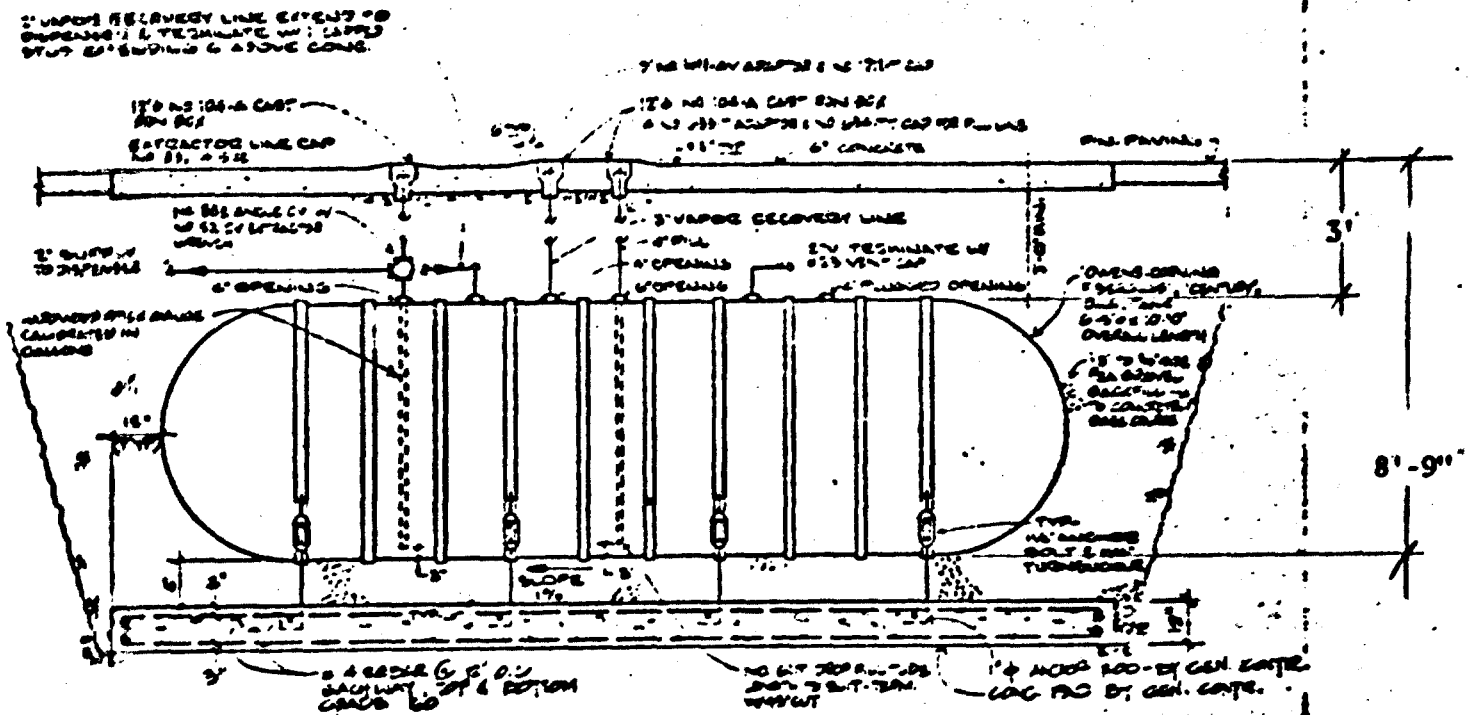
C. Solvent Waste Storage Tank:

2000 gallon capacity, 10 gauge black steel, all welded construction. Flanged nozzles cut to tank contour and welded to tank by tank manufacturer. Protect outside of tank with two (2) coats of Fabertite Coal Tar. Touch-up scratches or skips in field prior to setting tank. Coat all metallic accessories, such as holding down anchors, turn buckles, manhole riser, etc. Arrangement and accessories, including ballast slab, to be as detailed on drawings.

III. PROTECT STEEL AND GALVANIZED STEEL PIPE installed below grade to 6" minimum above grade with factory applied covering, PRO-CO., felt and pipe line enamel No. 4 double wrap, X-Tru-Coat plastic coating, OAA. X-Tru-Coat and all plastic coatings used on gas piping must receive additional double layer of Scotchrap #51, OAA, 20 mil tape applied at job site to cleaned coating. Protect field joints as follows: clean fittings, nipples, and other field joints thoroughly and apply Tapecoat Company, OAA, prime coat and one layer of Tapecoat #20 heat applied 62 mil tape in accordance with manufacturer's recommendations. Tapecoat distributed by Calpico, 185 Harbor Way, South San Francisco.

Test all below grade steel pipe in the presence of Job Inspector with Tinker and Rasor Holiday Detector as performed by California Pipe Service, South San Francisco, OAA; rewrap pipe where test indicates coating faults and retest; repeat procedure until system is free of all coating faults.

ATTACHMENT #2

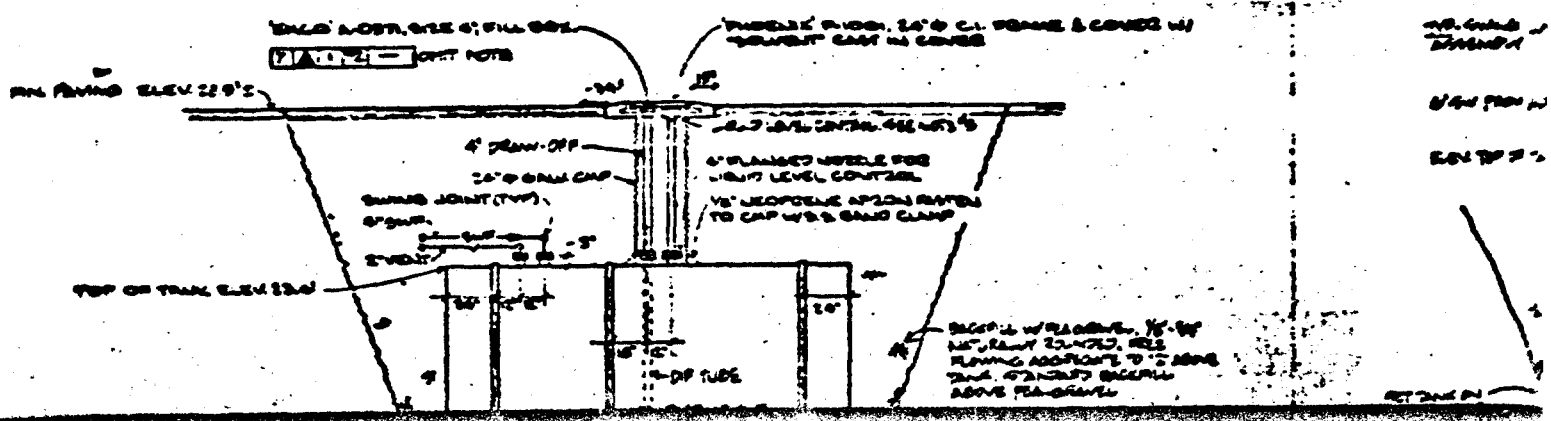


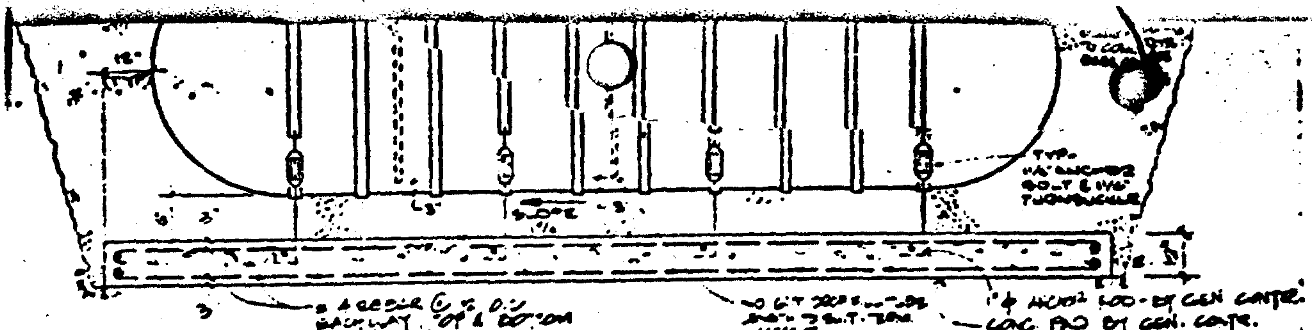
NOTES:

1. USE SWING JOINTS FOR ALL CHANGES IN DIRECTIONS ON ALL PIPING. DO NOT USE STREET ELLS.
2. ALL FITTINGS / ACCESSORIES SHALL BE 'OPW OR EQUIVALENT'
3. INSTALL TANK IN ACCORDANCE W/ SPECIFIC MFR'S INSTRUCTION SO AS NOT TO VOID THE GUARANTEE.

(3) DETAIL OF GASOLINE STORAGE TANK
NO SCALE

(5) DETA
NO SCALE





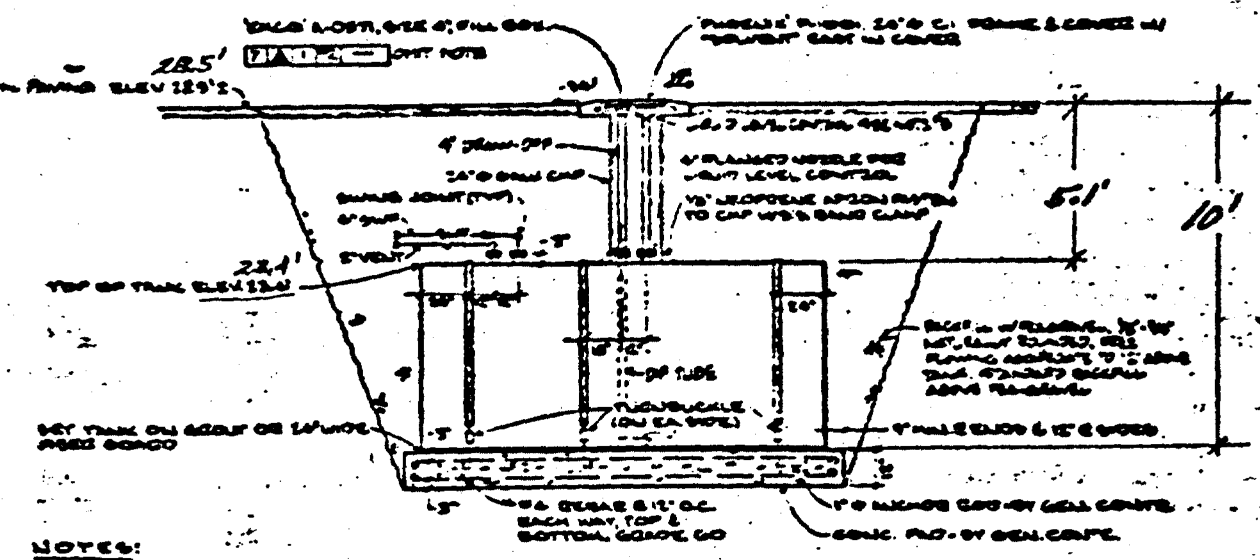
NOTES:

1. USE SWING JOINTS FOR ALL CHANGES IN DIRECTIONS OF ALL PIPING. DO NOT USE STREET ELLS.
2. ALL FITTINGS/ACCESSORIES SHALL BE 'OPW' OR BUCKEYE'
3. INSTALL TANK IN ACCORDANCE W/ SPECIFIC MFRS INSTRUCTION SO AS NOT TO VOID THE GUARANTEE.

3 DETAIL OF GASOLINE STORAGE TANK
NO SCALE

5 DETAIL
NO SCALE

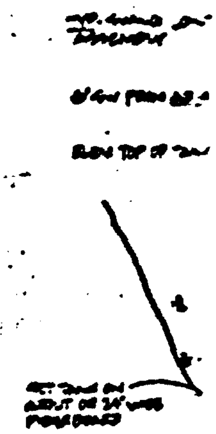
ATTACHMENT #6



NOTES:

1. SEE SPECIFICATIONS FOR EXTERIOR PROTECTION.
2. ALL TANK FLANGED FITTINGS SHALL HAVE NEOPRENE GASKETS
3. [illegible] ELECTRICAL CONTRACTOR.

4 DETAIL OF SOLVENT WASTE TANK No. 1
NO SCALE

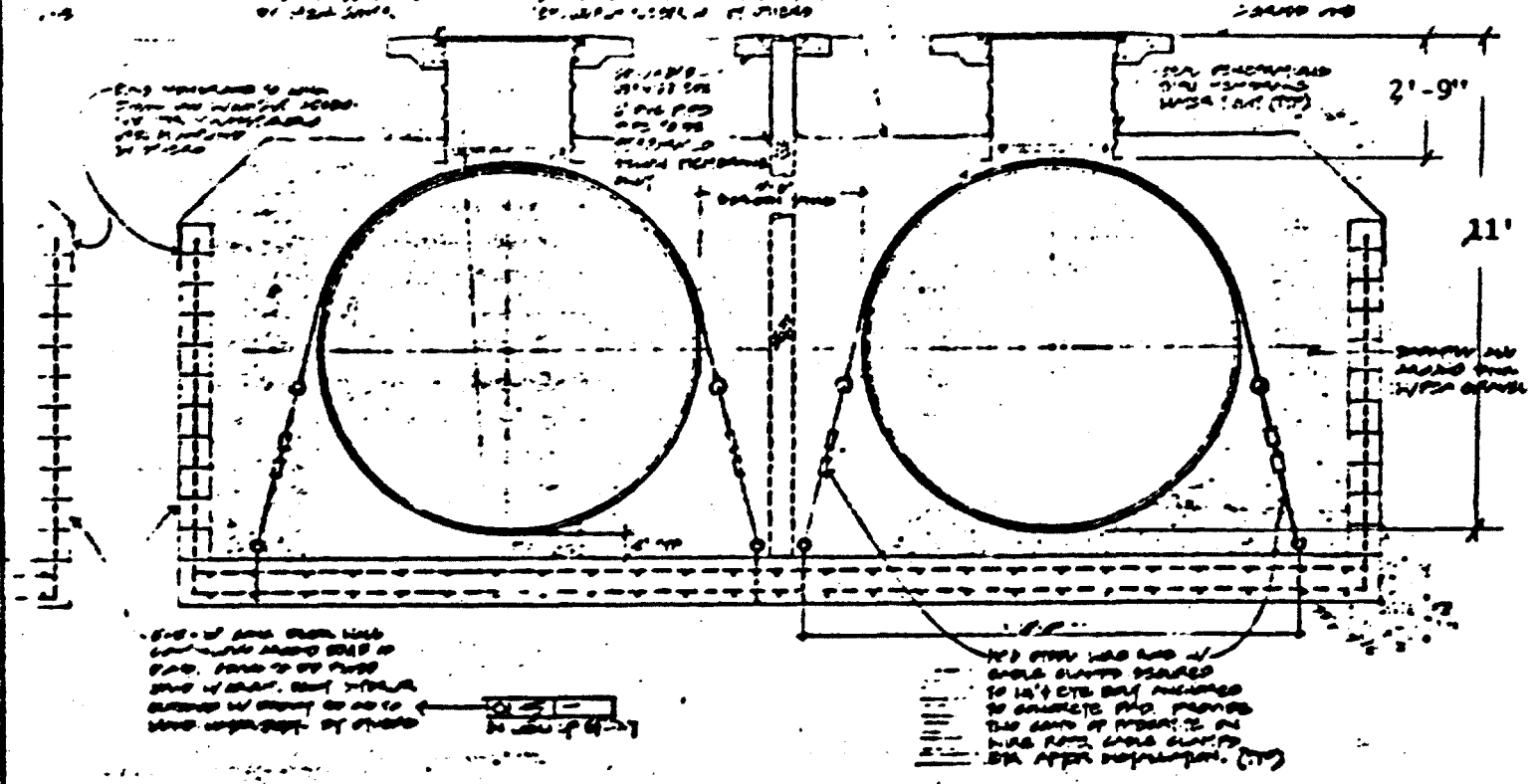


NOTES:

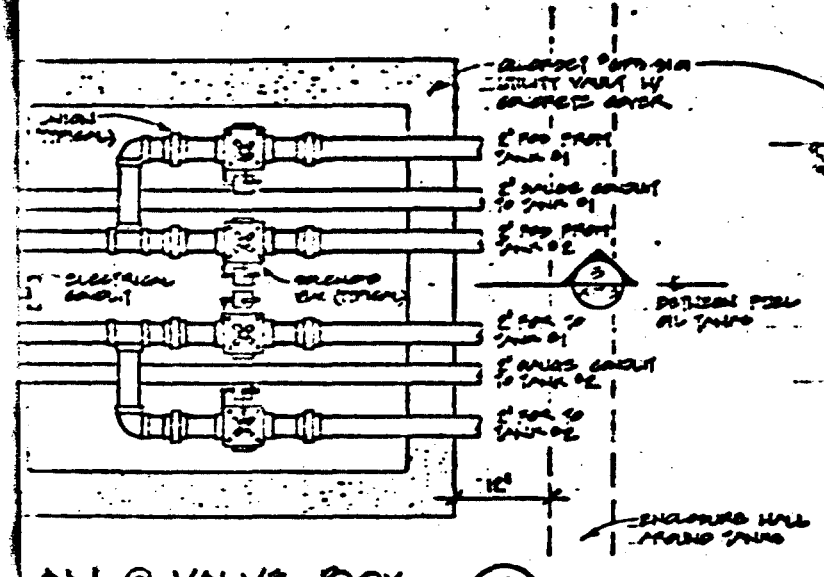
1. 550 GALLON [illegible]
2. ALL TANK FLANG[illegible]
3. REFER TO DETA[illegible]

6 DETAIL
NO SCALE

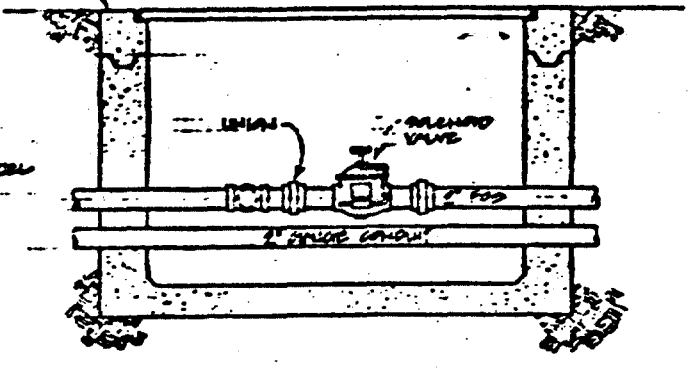
ATTACHMENT #4



FUEL OIL SECTION (2)

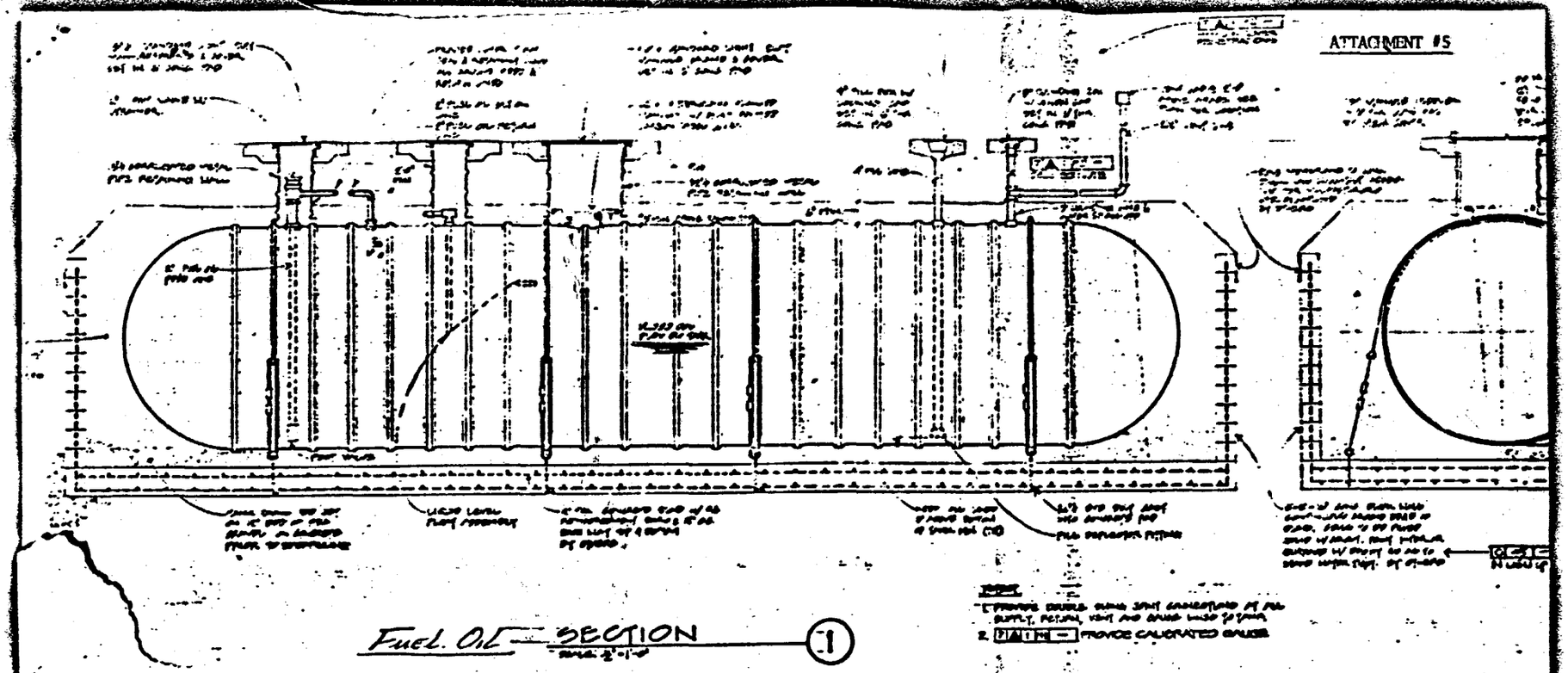


PLAN @ VALVE BOX (4)

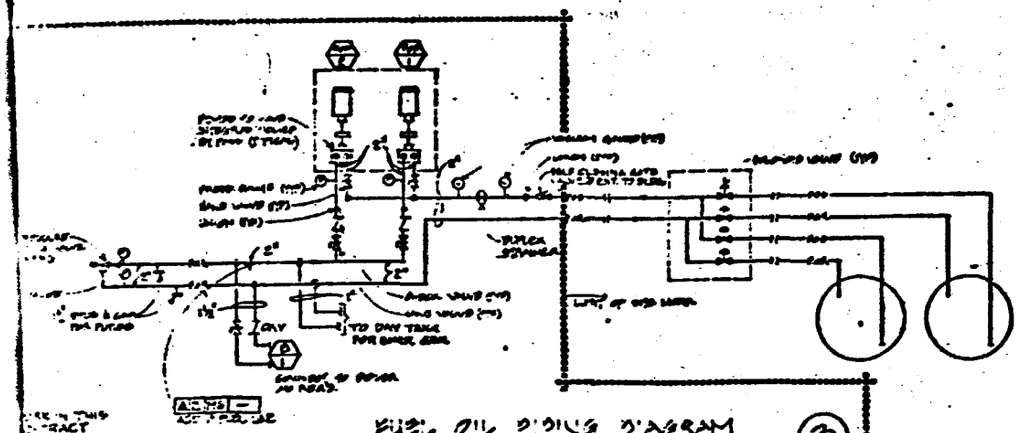


SECTION @ VALVE BOX (5)

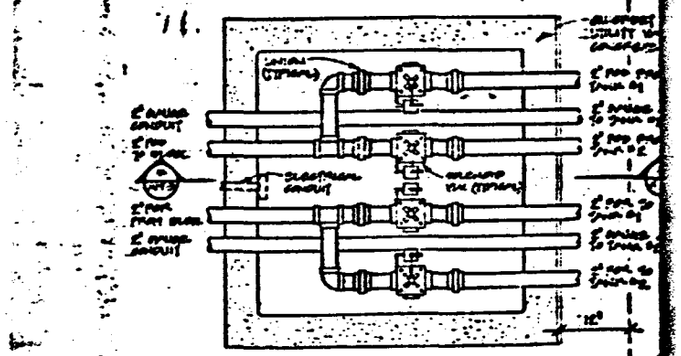
ATTACHMENT #5



FUEL OIL SECTION ①



FUEL OIL PIPING DIAGRAM ③



PLAN @ VALVE BOX ④

San Jose

4/15/82

GUIDELINES FOR TESTING UNDERGROUND TANKS AND PIPING

The following procedures have been developed as general guidelines for leak-testing underground tanks and piping. If you have questions or need help on a specific application, contact Dennis Early, Corporate Construction (TELNET 1-857-4729). Underground tanks and piping should be tested for leaks by applying a hydrostatic pressure of ten feet of water for twenty-four hours:

1. Prepare the tank by removing it from service and emptying it. Isolate the tank/drain line by closing valves and/or installing blind flanges to block flow.

2. Install a vertical standpipe. As a general rule, the standpipe should be constructed of material compatible with the waste stored in the tank at least until it reaches grade. Continue with clear PVC (1/2 inch diameter) to a height of approximately 11 feet above the tank top.

3. Fill the tank and standpipe with water to a height of 10 feet above the tank top. Check for gross leakage. If gross leakage is not evident, float approximately 1 inch of oil (approximately 3 ml) on top of the water in the standpipe to reduce evaporation and aid in seeing the meniscus.

4. Mark the water height in the standpipe. Let stand twenty-four hours and check for a drop in the water level.

5. Drain the tank and standpipe, recovering the oil from the standpipe. Water used in the test should be properly disposed of to waste treatment or a licensed waste hauler.

San Jose

4/15/82

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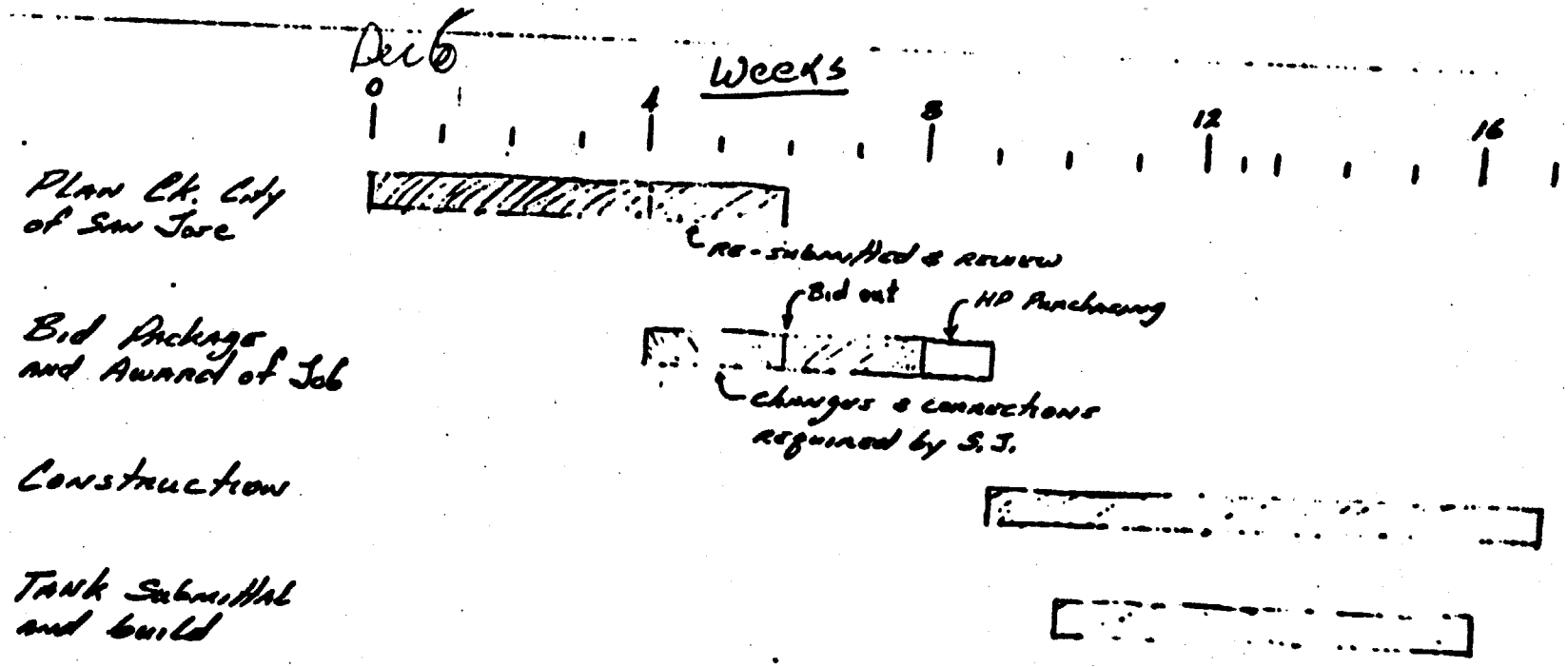


Construction Schedule
Solvent Tank Replacement
HP, USD, Building 90

EXHIBIT 2

HEWLETT PACKARD

MICROWAVE SEMICONDUCTOR DIVISION • 350 West Trimble Road, San Jose, California 95131, Telephone 408 263-7500

March 15, 1983

Nick Brabander
State of California
Department of Health Services
2151 Berkeley Way
Berkeley, California 94704

Dear Nick,

Enclosed is a request for Hazardous Waste Facility Permit Variance covering Hewlett Packard's Manufacturing Facilities at 350 West Trimble Road (HP Bldg. 90) and 370 West Trimble Road (HP Bldg. 91), in San Jose. Our facility at 370 West Trimble Road (HP Bldg. 91) will not be occupied until early 1984; however, we would like to cover those operations with this variance request since both facilities will utilize some common waste handling facilities.

The enclosed request covers information relevant to our Elementary Acid/Base Neutralization System and our Fluoride Treatment System. Our fluoride treatment system is not operational as yet and we do not anticipate start-up for approximately two to three months.

Currently the fluoride waste system consists of four 1200 gallon fiberglass reinforced plastic tanks connected by a common header and is located in the basement of Building 90. The system is used for temporary storage of Hydrofluoric acid waste and other liquid acid waste that may contain trace amounts of metals regulated by the San Jose/Santa Clara Water Pollution Control Plant. This waste is hauled away every 20 to 25 days by IT Corporation to their hazardous waste disposal site for neutralization. Since these four tanks will become a holding system (Bldg. 90 only) for our new fluoride treatment system further discussion is included as a part of the "Supporting Documentation for Variance Request".

Other waste handling systems currently in use include the following:

A. Stripper Waste

Stripper waste is drained from laboratory hoods located in our wafer fabrication processes through stainless steel lines to a stainless steel tank (300 gal. capacity) located in the basement of Building 90. The waste is held here for less than 90 days, when it is pumped to the outside of Building 90 where it is drummed in D.O.T. approved drums. It is then transported to the Kettleman Hills Disposal Site where it is solidified and landfilled.

Reference # 10

B. Solvent Waste

The current solvent holding system consists of an underground 2000 gallon capacity, 10 gauge black steel, all welded construction tank. This system acts in the capacity of temporary storage for all organic solvent waste in that solvents are held in storage for less than 90 days. Waste solvents are hauled away within the 90 day period for partial reclamation by Solvent Services Company.

It should be pointed out that we are in the process of obtaining approval from the City of San Jose for the installation of a 750 gallon vaulted tank storage system. This system has already received approval by the Regional Water Quality Control Board who has also allowed us to delay submission of groundwater and soil samples from beneath the existing tank until the existing tank has been removed. We anticipate removal of this tank by July 1, 1983.

The vault storage system for Building 91 which has never been used, is currently going through the same approval process.

C. Lab Packs

Miscellaneous laboratory wastes are identified and labeled at the work stations where they are picked up and classified. They are then packed in vermiculite (in their original sealed containers) in accordance to their classification, drummed in D.O.T. approved barrels, and hauled away by I.T. Corporation to a licensed disposal site at least every 90 days.

This same procedure will be used for HP Building 91 lab pack waste.

Attached for your review (Attachment #1) is a copy of the most recent Interim Status Document Inspection Report and our response to it which indicates that our waste handling systems and procedures are in compliance with our Interim Status Document.

In conclusion, since no waste material is held at this facility beyond the 90 days required to be considered as a storage facility, the primary emphasis of our variance request is on our Acid/Base Neutralization System and our Flouride Treatment System.

If you have any questions or if you need further information for proper consideration of this request, please give me a call at (408) 263-7500 x2302.

Sincerely,

Jerry T. Thorne

Jerry T. Thorne, P.E.
Manager, Safety and Environmental Engineering

REQUEST FOR HAZARDOUS WASTE FACILITY PERMIT VARIANCE

California Department of Health Services

Hazardous Waste Management Branch

I would like to request a variance from the Hazardous Waste Facility Permit requirements of the California State Department of Health Services.

I am requesting a variance for the following type of facility:

( ) Container storage

( ) Tank storage

- ( ) located above ground
- ( ) located below ground

( ) A totally enclosed treatment facility.

(XX) An elementary neutralization unit.

(XX) A facility that discharges directly to a POTW.

(XX) Other (specify) no waste storage for longer than 90 days

This facility is owned/operated by Hewlett-Packard Company Microwave Semiconductor Division

and is located at 350 West Trimble Road, San Jose, Ca 95131

I am basing my request for a variance on the following checked (X) sections of Title 22, California Administrative Code:

(XX) 66310(a)(1) The hazardous waste at my facility is insignificant as a potential hazard to humans, domestic livestock or wildlife because of its:

- ( ) small quantity;
- (X) low concentration; and/or
- (X) physical or chemical characteristics.

(XX) 66310(a)(2) The hazardous waste at my facility is handled, processed or disposed of pursuant to regulations of another governmental agency:

My firm is regulated by the following agency: San Jose/Santa Clara Water Pollution Control Plant - Permit #SJ-003A

A copy of the applicable permit is attached.

(Attachment A1)

I am attaching information and drawings as outlined in Attachment A in support of this variance request. For any facilities involving underground tanks, I have attached information on a proposed groundwater monitoring program as outlined in Attachment B.

I understand that any variance from the Hazardous Waste Facility Permit requirements of the Department of Health Services, if granted, does not exempt my firm from any other applicable laws and regulations governing the management of hazardous wastes.

I certify that all information submitted with regards to this variance request is true, accurate and complete.

Hewlett-Packard Company - MSD by Jerry T. Thorne, P.E.
(Applicant, Typed or Print)

Jerry T. Thorne
(Signature)

Hewlett-Packard - MSD
(Mailing Address)

Manager, Safety and Environmental Engineering
(Title)

350 West Trimble Road, M590/2D

(408) 263-7500 ext. 2302
(Telephone Number)

San Jose, Ca 95131

March 15, 1983
(Date)

CAT 000611400
Interim Status Document No.
If Applicable

ATTACHMENT A

SUPPORTING DOCUMENTATION FOR VARIANCE REQUEST

HF WASTE TREATMENT

Hydrofluoric acid and other acid waste containing trace amounts of metals regulated by the San Jose/Santa Clara Water Pollution Control Plant are disposed of in "sink hole" type drains or aspirators located in various laboratory hoods in our wafer fabrication process. In Building 90, drain lines transport the material to a solvent trap tank located in the basement of the Building (tank 1, drawing XP-12). This 500 gallon solvent trap tank is constructed of fiberglass reinforced plastic.

From the solvent trap tank, the material is siphoned to four 1200 gallon fiberglass reinforced plastic tanks connected by a common header. Those tanks are also located in the basement of Building 90 (see tanks WT-1A, WT-1B, WT-1C, and WT-1D on Drawing XP-12). All tanks located in the basement of Building 90 are anchored to the concrete floor in a curbed and drained area.

At the present time, the hydrofluoric acid is pulled out of the holding tanks with an IT Corporation vacuum truck and hauled to a licensed disposal site. However, after start up of the fluoride treatment system, the material will be pumped to the fluoride system treatment tank (see tank T-3, drawings P6.10 and P2.32E) in the common service building located between Buildings 90 and 91 (see Attachment A2).

In Building 91, fluoride waste will be drained from laboratory hoods to a 800 gallon solvent trap tank and 5600 gallon holding tank located in a vaulted and drained area (see T2 and T8, drawing P6.10). From the waste vault, the material is pumped to the treatment tank in the service building mentioned above.

Drawing P2.32E, which is enclosed, illustrates the layout of the fluoride treatment system and drawing P6.10 illustrates the HF treatment system flow schematic and includes tank capacities. All treatment system tanks are constructed of fiberglass reinforced plastic and are anchored to a concrete, epoxy grout floor which is curbed and gravity drained back to the holding tank for Building 91. Fluoride is treated with a mixture of hydrated lime and $CaCl_2$ combined in a 2:1 weight ratio. The solid precipitate of CaF_2 drops out and the high pH decantate is pumped to T-1 (first stage of elementary acid/base neutralization system - see Tank #1, drawing P2.32E) for neutralization. The residual is tested for arsenic and fluoride content prior to pumping to tank #1. The acid/base neutralization system discharges to the San Jose/Santa Clara Water Pollution Control Plant.

The resulting sludge is pumped to one of the two sludge holding tanks until hauled away be a licensed waste hauler.

The waste generated normally contains 5000 to 6000 ppm of fluoride prior to treatment. Treatability studies and experience with this system at other facilities have indicated that this process reduces an initial fluoride concentration of 5000 ppm to less than 3 ppm. This waste could contain as much as 100 ppm of arsenic, which is reduced to less than .01 ppm.

ACID/BASE NEUTRALIZATION

Since the neutralization transfer stations for both Buildings 90 and 91 are the same, they will not be described separately. The transfer station for Building 90 is illustrated in drawing XP-12, enclosed.

Basically, process acid and base waste that does not contain regulated contaminants are disposed of in laboratory hood sinks in our wafer fab processes, assembly and test processes, product assurance laboratories, etc. The material is drained to a 300 gallon solvent trap tank in the basement of each building (tank 8, drawing XP-12). The material is then siphoned to a 2200 gallon ¼" mild steel transfer tank (tank 9, drawing XP-12) that has been lined with 3/32" B.F. Goodrich Koroseal liner. Both tanks are anchored to a concrete floor which has been provided with a curb and drain which would pump any spill back to the transfer tank.

When the material in the transfer tank reaches a specific level, it is pumped to the first stage of the neutralization system located in the common service building (A W neutralization tank 1, drawing P2.32E).

This material, as well as the decantate from the fluoride treatment system, is neutralized in two stages, using 50% sodium hydroxide and 98+% sulfuric acid. The sodium hydroxide is metered into each stage from a holding tank and the sulfuric acid is metered in from carboys (see drawing P2.32E - Elementary Neutralization System). The neutralization chemicals are metered automatically according to pH demand.

The pH of the material entering the neutralization system normally varies according to production activity. The pH can be as low as 2.5 during high production periods, and as high as 5.5 during evening hours or light production periods. The two stage sulfuric acid adjust is primarily utilized when D.I. water columns are regenerated when the pH can be as high as 11.

After neutralization, the material varies from pH 6 to pH 9, but normally runs around 8. This material is discharged to the San Jose/Santa Clara Water Pollution Control Plant which is a P.O.T.W.

Attached is an analysis of the material discharged to the P.O.T.W. (Attachment A3). An analysis of this nature is made on a monthly basis by collecting a 24 hour composit sample, which is analyzed by Hewlett-Packard's Corporate Environmental Lab. The attached analysis is for the month of January, 1983.

The neutralization tanks are 5200 gallon capacity each and are constructed of fiberglass reinforced plastic. They are anchored to the concrete, epoxy grout floor of the service building. In the event of a spill, a 450 gallon sump is available and a sump pump which would pump the spilled material back to the first stage of the neutralization system.

GENERAL INFORMATION

The entire perimeter of HP owned property at this site is completely fenced. There is also a secondary security fence, which further restricts access to the service building (see Attachment A2). The perimeter fence is protected by locked gates or manned security guard stations. Secondary interior fencing is protected by locked gates during off hours and alarmed emergency exit gates.

The doors to the service building itself are equipped with alarms which are set during off hours. These alarms enunciate to an electronic security panel located at a security station, which is manned 24 hours per day.

In addition, the property perimeter and buildings are patrolled by HP's security department during off hours.

ATTACHMENTS

A1 Copy of San Jose/Santa Clara Water Pollution Control Plant Permit #SJ-003A

A2 Layout of HP San Jose Site

A3 Wastewater Analysis for January 1983

ENCLOSURES

Drawing XP-12	Waste Transfer Area in Basement of Building 90
Drawing PG.10	HF Treatment System Flow Schematic
Drawing P2.32E	HF Treatment and Neutralization System layout in common service building for Buildings 90 and 91

RHC

HEWLETT PACKARD

3000 Hanover Street, Palo Alto, California, Telephone 415 857-1501, TWX 910 373 1267
Mail Address: P.O. Box 10301, Palo Alto, California 94303-0890

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

JUL 13 1984

July 9, 1984

Donald D. Dalke
California Regional
Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, CA 94607

Re: Subsurface Investigation at HP, 350 W. Trimble Rd. SJ.

Dear Mr. Dalke:

This is in answer to your concerns regarding the discharge of basement drainage water to the San Jose storm drain. The analyses of subsurface collection water under Bldg. 90 basement reported in AEC's report dated April 12, 1984 indicated the water was tainted with 11.6 ppb of TCA; all other compounds analyzed for were nondetectable. I would like to clarify two details regarding this sample that I hope will alleviate your concerns. 1. This sample was bailed directly out of the collection sump before discharge from the pump. Due to the volatile nature of TCA and TCE, pumping greatly reduces their concentrations in the water. 2. Drainage water from both basements are pumped to a common pipe before discharge to the storm drain. Guadalupe Creek is believed to be the discharge location for this storm water.

Per your request, another sample of both basement collection water was collected. A sample was also collected in the storm drain after the merging of the two basement waters. Since this is the dry season, this is the only water being discharged to the storm drain at this time. On this second round of sampling, all analyses turned out nondetectable. Attached are the official lab results for your reference.

A copy of the HP laboratory certification for water and wastewater analyses is attached per your request. This should complete our investigation at this site. If you have any further questions, please direct them to me at (415) 857-8568.

Sincerely,

HEWLETT PACKARD COMPANY

Susan Miller

Susan Miller
Corporate, Environmental Projects

cc: Ron Clausen

Reference #13

HEWLETT-PACK CORPORATE ENVIRONMENTAL LABORATORY

AQUEOUS ORGANIC

SAMPLING DATA SHEET

JUN 20 1984

Lab. No. 062084 05D304

Date June 22, 1984

I. LOCATION/OPERATION

Division MSD

Coordinator Jerry Thorne x 163-2302
Dave Brooks 7657

Sampling Situation All nine samples were removed from sumps. We are checking for the typical ground water contaminants, especially TCA

II. SAMPLE DATA

Contaminant(s)/Regulatory Limit(s) TCA, TCE, $MeCl_2$, Freon TF

III. SAMPLING INFORMATION

Sample Number	Time	Date	Location & Misc. Information
3	1:45pm	6-22-84	Parking Lot Sump
1	1:30	"	Bldg 90 Sump
2	1:30	"	Bldg 91 Sump

(Analytical Results on Backside)

SJ Fire Dept
RECEIVED SEP 21 1987

HEWLETT PACKARD

MICROWAVE SEMICONDUCTOR DIVISION • 350 West Trimble Road, San Jose, California 95131, Telephone 408 263-7500

Mike Randolf
San Jose Fire Department
Hazardous Materials Program
801 N. First Street, Room 100
San Jose, CA 95110

September 30, 1986

RE: Underground Tank Removal
Closure of Gasoline Storage
Hewlett Packard San Jose
350 West Trimble Rd.

Dear Mr. Randolf,

Attached is information which completes the documentation required for the removal of a two thousand gallon gasoline storage tank at Hewlett Packard's San Jose Site. You inspected the removal operation and underlying soil on June 5, 1986, and found no evidence of a leak.

The attached documents include:

1. A report from IT Corporation describing the removal and testing procedures. The report includes a site plan showing the former tank location.

2. A sample analysis request form for the soil sample taken from two feet beneath the tank, and the analysis results from this sample. The analysis showed no amounts of petroleum hydrocarbons above the detection limits.

3. A copy of the San Jose Fire Department Hazardous Materials Program Permit Application for the project.

The project is complete, and this information should complete your files. Please contact me at 408-435-4183 if you have any questions. Questions on the project can also be directed to Chuck Jorgensen in our facilities department, who ably managed this removal project. He can be reached at 408-435-4321.

Sincerely,
Gail Brownell
Gail Brownell
Environmental Engineer

cc: Chuck Jorgensen
Dominic Milazzo
Hazel Kelly
Jerry Thorne
Kamel Shalhoub
Dale Bowyer, RWQCB (for your files!) (hi!!)

Reference #18

INTERNATIONAL TECHNOLOGY CORPORATION

IT Corporation
4585 Pacheco Blvd.
Martinez, CA 94553

June 13, 1986

ATTN: Tim Anenson

Following are the results of analyses on the sample described below.

Project Number: ME 0167, Hewlett Packard

Lab Number: 40907
Sample Type: soil
Date Received: 6/5/86
Analyses Requested: Volatile Fuel Hydrocarbons

The method of analysis for volatile fuel hydrocarbons is taken from E.P.A. Methods 8015, 8020 and 5030. The samples are examined using the purge and trap technique. Final detection is by gas chromatography using a flame ionization detector as well as a photo-ioniozation detector.

The results for total volatile fuel hydrocarbons are calculated as gasoline and include benzene, toluene, ethyl benzene and xylenes.

nd = none detected

Results

		Parts per Million (dry soil basis)			
Lab Number	Sample Identification	Volatile Fuel Hydrocarbons	Benzene	Toluene	Ethyl benzene and xylenes
40907	HP-1, Removed tank pit, 6/5/86 @ 2:30 p.m.	nd	nd	nd	nd
Detection Limit		5.	0.5	0.5	1.

Patricia L. Murphy

Patricia L. Murphy

PLM/ksr

Reference #19

P. BLAIS

STATE OF CALIFORNIA—HEALTH AND WELF[illegible] AGENCY — George Deukmejian, Governor

DEPARTMENT OF HEALTH SERVICES
2151 BERKELEY WAY
BERKELEY, CA 94704

Certified No. P 295 262 567
January 12, 1983

CAT000 611400

Jerry Thorne
Manager, Safety & Environmental Engineering
Hewlett-Packard Company
350 West Trimble Road
San Jose, CA 95131

Dear Mr. Thorne:

On October 5, 1982 an inspection of your facility was conducted by Denise Tsuji of the Hazardous Waste Management Branch.

In general, it appeared that your facility was in compliance with your Interim Status Document (ISD), and the Hazardous Waste Control Act (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Administrative Code, Title 22, Division 4, Chapter 30), CAC. However, the following conditions which appeared to be violations were observed during the inspection:

1) Not all storage tanks holding hazardous waste had the National Fire Protection Association's placards on them. (ISD Section II 2(d)).

2) No inspection schedule for equipment and operation has been written. (ISD Section III 5(b)(1)).

Section 66328(d) CAC states: "If corrections are needed, the operator shall provide to the Department a written plan of correction which states the actions to be taken and the expected dates of completion."

You are hereby directed to submit a Plan of Correction to this office, pursuant to Section 66328(d) CAC, which describes the steps you will take to correct these deficiencies. Your Plan of Correction must be received at this office within 30 days from the date of this letter.

If you have any questions concerning this matter, please contact Denise Tsuji of this office at (415) 540-3079.

Sincerely,

Charles A. White, P.E.
Regional Administrator
North Coast Region
Hazardous Waste Management Branch

Reference #20

cc: Paul Blais
U.S. EPA

Vincent Cancilla, Dir.
Santa Clara County

STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES

HAZARDOUS MATERIALS
MANAGEMENT SECTION

HAZARDOUS WASTE

SURVEILLANCE AND COMPLIANCE REPORT

DATE 4/18/84 - 4/19/84

FIRM NAME HEWLETT PACKARD MICROWAVE SEMICONDUCTOR SITE CLASSIFICATION ☐ I ☐ II-1 ☐ II-2 ☐ III

ADDRESS 350/370 TRIMBLE RD. ☒ Other ISD

SAN JOSE CA 95131 SITE PERMIT NO. CAT 000611400

PURPOSE: ISD / VARIANCE REQUEST INSPECTION

BACKGROUND: REQUEST FOR VARIANCE FROM ~~CCR~~ PERMITTING REQUIREMENTS BASED ON REGULATION OF ANOTHER AGENCY (SAN JOSE WPCP) AND LESS THAN 90 DAY STORAGE. PREVIOUS ISD INSPECTION VIOLATIONS ① NOT ALL H.W. STORAGE TANKS HAD NFPA LABELS ② NO INSPECTION SCHEDULES.

OWNERSHIP: HEWLETT PACKARD, INC.; JOHN A. YOUNG, PRESIDENT

PERSONS PRESENT: JERRY THORNE, FACILITY CONTACT
JOYCE AVERY, DESIGN ENGINEER, NEW FLUORIDE TREATMENT.
DAVID BROOKS, CORPORATE ENGINEER
AMY ZIMPFER, DOHS

DESCRIPTION OF FACILITY: FACILITY MANUFACTURES TRANSISTORS & INTEGRATED PRODUCTS. STRIPPER WASTE - DRUMS, SHIPPED < 90 DAYS. TREATMENT: EXISTING: PH NEUTRALIZATION (ABOVE GROUND TANKS) PROPOSED TO BE STARTED LATE SUMMER - FLUORIDE METAL REMOVAL - CURRENTLY THIS WASTE IS PUMPED & DISPOSED AS A H.W. SOLVENT-TANK STORAGE (OLD U.G. TANK HAS BEEN REMOVED) - DISPOSED OF OR RECYCLED AS H.W. < 90 DAYS STORAGE.

OBSERVATIONS:
ON 4/18/84 A DRUM STORAGE SHED WAS LOCKED & JERRY SAID PERSON W/ KEY WAS GONE. I RETURNED ON 4/19/84 ~~BECAU~~ & DISCUSSED THAT IT WAS UNSATISFACTORY TO NOT BE ABLE TO ENTER AT ANY TIME (I.E. EMERGENCY). HE SAID HE FORGOT HIS MASTER KEY WORKED. UPON OBSERVATION OF STORAGE AREA ALL LOOKED IN ORDER. MUCH ABSORBANT AVAILABLE NO LEAKS. INSPECTION SCHEDULE - ~~CCR~~ SATISFACTORY & EXISTING & PROPOSED W.W.T. WORKS THINGS HAD NFPA LABELS & HW STORAGE - NO VIOLATIONS - SEE ATTACHED CHECKLIST.

CONCLUSION - APPROVE VARIANCE REQUEST. WITH CONTINGENCY THEY NOTIFY US WHEN FLUORIDE TREATMENT IS ON LINE.

INSPECTOR Amy Zimpfer DATE 4/20/84

Reference # 21

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
2151 BERKELEY WAY
BERKELEY, CA 94704

SURVEILLANCE AND COMPLIANCE REPORT
HAZARDOUS WASTE GENERATOR

Date of Inspection: 4/18/84

EPA I.D. # CAT000611400

Inspector's Name: ZIMPFER

Generator Name/Address	Mailing Address	Ownership
HEWLETT PACKARD -	SAME	HEWLETT PACKARD INC.
MICROWAVE SEMICONDUCTOR		PRESIDENT: JOHN A. YOUNG
350 W. TRIMBLE RD.		
SAN JOSE, CA 95131		

County SANTA CLARA

Type of business: MANUFACTURE TRANSISTORS & INTEGRATED CIRCUITS

Persons present: Jerry Thorne, Dave Banks, Joyce Avery, Amy Zimpfer

Contact Person JERRY THORNE

Phone # (408) 263-7500 X2302

Samples taken: Yes __ (receipt attached) No X

Avg. Gen. Rate (monthly) HW See attached. Drums 3/mo.

Plan of Correction necessary: Yes __ (Due date: ________) No X

Discussion with Management:
Waste Stream - See attached City of San Jose application delineating Waste Stream Quality for Bldg. 90+91. HF System - To be in operation starting Summer 84, Full capacity expected early 85. Incoming - dilute HF + ammonium fluoride & some residual arsenic. Treat ≈ 70,000 gal/month max. Lime + calcium chloride Treatment. pH 10-10.5 to pH adjust. Sludge calcium fluoride w/ residual arsenic to storage tank ≈ 15% of starting Volume. Vacuum Truck pumps dry. 5-7,000 ppm F, 80 ppm Arsenic. HF waste currently being manifested will soon be treated. Has NPDES (see file).
No violations 4/19/84 - Revisit/Visual inspection of Container Storage - O.K. AZ

Facility operating under ISD? Yes X No __

On this date an inspection of your facility was conducted under authority of Section 25185, California Health & Safety Code and Section 66328, California Administrative Code. The collection of samples or other evidence, including the taking of photographs, was done under authority of Section 66328, California Administrative Code. Specific violations of one or more Sections of the California Health & Safety Code, Division 20; California Administrative Code, Title 22; or Code of Federal Regulations, Part 40 are noted on the attached document. These violations relate to the generation, storage, handling, transportation, and/or disposal of hazardous and extremely hazardous waste.

Authorized Representative of Firm*
Name JERRY T. THORNE
Title Mgr. Safety & Environmental Engineering
Signature J.T. Thorne
Date 4/19/84

Authorized State Agent
Name Amy Zimpfer
Signature [signature]
Date 4/19/84

*Signature of firm representative signifies receipt of copy of this form

7/83

KEY TO GENERATOR CHECKLIST

1. ALL GEN - Asterisks appearing in this column indicate those sections applying to <u>all</u> generators of hazardous waste (sections for which small quantity generation limit does not apply)

2. H & S - Health and Safety Code, Division 20, Chapter 6.5

3. CAC - California Administrative Code, Title 22, Division 4, Chapter 30

4. 40 CFR - Code of Federal Regulations Part 40

5. Section Description - see attached information for further explanation

6. Cmt. - See Comments page (attached to back of Generator Checklist if necessary)

FIRM NAME: HP - Microwave - Semiconductor CAT000611400

SECTION #				GENERATOR CHECKLIST	In Compliance?			
All[1] Gen	H&S[2]	CAC[3]	40 CFR[4]	Section Description[5]	Yes	No	N/A	Cnt.[6]
				HAZARDOUS WASTE DETERMINATION				
*		66505 (a,b)	262 .11	Hazardous waste determination made for all waste	X			
				HAZARDOUS WASTE FACILITY				
*	25123 .3	66370	262.34 .(a)(1)	Generator does not store waste on-site for more than 90 days	X			
*		66370		Generator does not treat waste on-site See Comment/Variance Requests		X		X
*		66370		Generator does not dispose of waste on-site	X			
				" " " receive off-site waste	X			
				EPA IDENTIFICATION NUMBER				
			262 .12	Generator has EPA I.D. # (See Face Sheet)	X			
				MANIFEST				
*		66470	262 .20	Applicable sections accurately completed for all waste transported off-site	X			
*		66475 (a-f)	262 .21 & .23	The following is on all manifests:				
				Manifest document number	X			
				Name, mailing address, phone #, EPA ID # of Generator	X			
				Name, EPA ID # of Transporter(s)	X			
				Name, address, EPA ID # of designated/alternative facility	X			
				DOT description of waste(s) X	X			X
				Total quantity of wastes(s) and type/# containers	X			
				Certification statement/Required signatures	X			

FIRM NAME: HP - MICROWAVE SEMICONDUCTOR CAT000611400

SECTION #				GENERATOR CHECKLIST	In Compliance?			
All[1] Gen	H&S[2]	CAC[3]	40 CFR[4]	Section Description[5]	Yes	No	N/A	Cmt.[6]
				MANIFEST (continued)				
			262 .22	Copies of manifest available for review	X			
*		66475 (g)		Properly completed copies submitted monthly to DOHS	X			
			262 .42(a)	Status of TSD facility copy determined if not returned in 35 days	X			
			262 .42(b)	Exception reports submitted to DOHS within 45 days	X			
				DEPOSITION OF WASTE				
*		66505 (c)		Hazardous waste taken only to a State approved facility	X			
				EXTREMELY HAZARDOUS WASTE				
*		66570 (a,b)		Extremely hazardous waste not handled/disposed of without permit	X			
*		66570 (d)		No deviation from DOHS approved handling/disposal methods	X			
				USE AND MANAGEMENT OF CONTAINERS				
			265 .171	Containers are in good condition	X			X
*		66500 (c)	265 .172	Containers are compatible with waste in them	X			
			265 .173(a)	Containers are stored closed	X			
			265 .173(b)	Containers are managed to prevent leaks	X			
			265 .174	Containers are inspected weekly for leaks/defects	X			
			265 .176	Ignitable/reactive wastes stored 50'(15m) from facility property line	X			
*		66500 (a)	265 .176	Contact/mixing of incompatibles does not occur	X			

FIRM NAME: HP - MICROWAVE/SEMICONDUCTOR CAT000611400

SECTION #				GENERATOR CHECKLIST	In Compliance?			
All[1] Gen	H&S[2]	CAC[3]	40 CFR[4]	Section Description[5]	Yes	No	N/A	Cat.[6]
				USE AND MANAGEMENT OF CONTAINERS (continued)				
*		66500 (b)	265 .176	Incompatibles are stored/protected in separate containers	X			X
				TANKS				
			265 .192(b)	Stored waste does not cause corrosion, leakage, or premature failure	X			
			265 .192(c)	Uncovered tanks have 2'(60cm) freeboard, dikes or other containment structures			X	
			265 .192(d)	Continuous feed systems have waste-feed cutoff	X			
			265 .193	Waste analysis done if substantially different waste is to be placed in tank	X			
			265 .194	Discharge control equipment, operating equipment, and waste level checked daily	X			
			265 .194	Construction materials of tank/containment area checked weekly	X			
			265 .197	At site closure, all hazardous waste, residues, and contaminated equipment will be properly disposed	X			
			265 .198 (a)(2)	Ignitable/reactive waste protected from any material that would cause it to ignite/react	X			
			265 .198(b)	NFPA buffer zone for tanks observed	X			
*		66500 (b)	265 .199	Incompatibles are stored/protected in separate tanks	X			
				PRE-TRANSPORT REQUIREMENTS				
			262 .30-33	Waste is packaged, labelled, and placarded according to 49 CFR (DOT)	X			X
			262 .32(b)	Each container of 110G, or less, marked as follows:	X			X
				HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency. Generator's Name and Address ——— Manifest Document Number ———				

FIRM NAME: HP - SEMICONDUCTOR CAT000611400

SECTION #				GENERATOR CHECKLIST	In Compliance?			
All[1] Gen	H&S[2]	CAC[3]	40 CFR[4]	Section Description[5]	Yes	No	N/A	Cmt.[6]
				ACCUMULATION TIME				
*	25123 .3		262.34 (a)(1)	All waste moved off-site within 90 days of accumulation commencement to approved facility	X			X
			262.34 (a)(2)	All waste is in properly managed tanks/containers	X			
			262.34 (a)(3)	Containers visibly marked with date of accumulation commencement	X			
				TRAINING, EMERGENCY PROCEDURES				
			265 .16	Personnel trained OTJ or in classroom within 6 months of employment (or as of 5/19/80)	X			
			265 .16	Training direction by person trained in hazardous waste management	X			
			265 .16	Training includes emergency response procedures and emergency equipment use	X			
			265 .16	Personnel training records include titles, job descripiton, dates/ type training	X			
			265 .17	Special training for ignitables, reactive, or incompatible waste: special handling, no smoking signs, separation/protection from ignition source.	X			
				PREPAREDNESS AND PREVENTION				
			265 .32	Appropriate communications/alarm systems	X			
			265 .32	Appropriate firefighting, spill control, and decontamination equipment	X			
			265 .32	Adequate water (or foam) supply for fire control	X			
			265 .33	Adequate testing/maintenance procedures for emergency equipment	X			
			265 .33	Emergency equipment maintained in operable condition	X			
			265 .34	Immediate access to internal alarm systems	X			
			265 .35	Adequate aisle space for unobstructed movement	X			

FIRM NAME: HP - SEMICONDUCTOR/MICROWAVE CAT000611400

SECTION #				GENERATOR CHECKLIST	In Compliance?			
All[1] Gen	H&S[2]	CAC[3]	40 CFR[4]	Section Description[5]	Yes	No	N/A	Cmt.[6]
				CONTINGENCY PLAN AND EMERGENCY PROCEDURES				
			265 .37	Arrangements with local authorities/emergency response teams	X			
			265 .51 & 53	Generator has prepared contingency plan and maintains at site	X			
			265 .51	Contingency plan specifies actions for personnel in case of fire, explosion, unplanned releases	X			
			265 .52	Names, addresses, phone #'s of all qualified emergency coordinators	X			
			265 .52	List of emergency equipment specifying location, description, and capabilities	X			
			265 .52	Evacuation plan (including signals, routes, and alternates)	X			
			265 .53	Copies of contingency plan available at site and local emergency agencies	X			
			265 .54	Contingency plan is amended whenever necessary quarterly update	X			
			265 .55	Emergency coordinator familiar with all aspects of site operating/ emergency procedures	X			
			265 .55	Emergency coordinator has authority to carry out contingency plan	X			
			265 .56(a)	If emergency (imminent/actual) has occurred, emergency coordinator has activated alarm/communications system notified appropriate State/	X			
			265 .56(b)	If acutal emergency has occurred, emergency coordinator has identified character, exact source, amount, extent. local authorities.	X			
			265.56 (c)(d)	If actual emergency has occurred, emergency coordinator has reported	X			
				determined health/environmental hazards and notified appropriate government officials.				
			265 .56(e)	If actual emergency occurs, emergency coordinator takes all reasonable measures necessary to stop spreading	X			
			265 .56(f)	Equipment stopped during emergency monitored for intactness	X			
			265 .56(g)	Released waste/contaminated equipment properly treated, stored, disposed	X			
			265 .56(h)	Contaminated emergency equipment cleaned/incompatibles kept separate	X			
			265 .56(i)	Notification of State, after "emergency", that site is in compliance with 265.56(h)	X			
			265 .56(j)	All appropriate data (from emergencies) logged in operating record and submit report to State within 15 days of accident	X			

FIRM NAME: HP- MICROWAVE/SEMICONDUCTOR CAT 000611400

SECTION #				GENERATOR CHECKLIST	In Compliance?			
All[1] Gen	H&S[2]	CAC[3]	40 CFR[4]	Section Description[5]	Yes	No	N/A	Cat.[6]
				RECORDKEEPING AND REPORTING				
			262 .40	Manifest, Annual Report, Exception Reports, and tests results retained at least 3 years	X			
			262 .41	Submittal of Annual Report to DOHS (Effective for calendar year 1983)	X			
*	25342			Submittal of Annual Report to Board of Equalization	X			
				INTERNATIONAL SHIPMENTS				
			262 .50(b)	Written notification to EPA Administrator for waste exportation			X	
			262 .50(b)	Obtained signature of foreign consignee re: delivery			X	
			262 .21	Manifest requirements met for hazardous waste exportation/importation			X	
				UNDERGROUND TANKS INFORMATIONAL SURVEY				
				Does generator have underground tanks containing:		X		X
				Hazardous materials?		X →		
				Hazardous waste?		X →		
				Does generator have leak detection system for underground tanks?		X		

FIRM NAME: HP/MICROWAVE/SEMICONDUCTOR CAT000611400

Section #			
H&S	CAC	40 CFR	COMMENTS
	66370		Has requested variance/POTW WWT.
	66475		DOT E8129 exemption: Can use generic classifications for waste hauling.
	66500	262.30-33 * 265.???	Container location - locked; Based on Denise Tsuji's previous inspection and small amount of current storage (10 drums/90 days [illegible] - building did not appear full) Container Storage O.K. 4/19/84 Visual Inspection Revisit - All O.K. AKZ [illegible] Also, covered, metal existing building (see inspection report 10/82) will be out of use ≈ 1 month. Covered, separated concrete storage bays will be used (an improvement over existing.)
			All subsurface underground tanks are vaulted and easily inspected.

San Jose/Santa Clara
Water Pollution Control Plant

INDUSTRIAL WASTEWATER DISCHARGE APPLICATION/PERMIT

OFFICE USE ONLY
SIC #
DATE REC'D.
FEE REC'D.

PART I - APPLICATION

A. COMPANY Hewlett-Packard Company

BUSINESS ADDRESS 350 and 370* West Trimble Road, San Jose, Ca 95131

ADDRESS OF DISCHARGE Same as Above PHONE (408) 263-7500

B. INDIVIDUAL RESPONSIBLE FOR WASTEWATER Jerry Thorne

PHONE (408) 263-7500 EXT. 2302 EMERGENCY PHONE Same EXT. Same

C. DESCRIPTION OF ACTIVITIES & PRODUCTS Manufacturing, Assembly, and Test of Diodes and Transistors

PRODUCT VOLUME (LBS./DAY)

D. OPERATING SCHEDULE (IF SEASONAL, EXPLAIN ON PAGE 4):

SHIFT #1 Flexible Hrs. TO SHIFT #2 Flexible Hrs. TO SHIFT #3 Flexible Hrs. TO

E. NUMBER OF EMPLOYEES: (see also Section O)

	SHIFT #1	SHIFT #2	SHIFT #3	OFFICE
WEEKDAYS	1058	140	33	Included in Shift #1
SATURDAYS	20	15	15	" " " "
SUNDAYS	20	15	15	" " " "

NO. OF SQ. FT. OFFICE SPACE 124,500 NO. SQ. FT. MANUFACTURING/ASSEMBLY SPACE 163,700

NO. OF SQ. FT. WASTEWATER-GENERATING SPACE 113,900 TOTAL NO. SQ. FT. 374,200
bldg. support 86,000 sq. ft.

F. PLEASE GIVE AVERAGE OF CHEMICALS STORED & USED IN GALLONS OR POUNDS/MONTH:

Stored	Used	Acids
**	1900 ga.	Hydrochloric (Muriatic)
	230 "	Hydrofluoric
	1150 "	Nitric
	250 "	Sulfuric
	70 "	Other (specify) Acetic
	100 "	Phosphoric
	20 "	Fluoboric
	60 "	Alkalies Ammonium Fluoride
	60 "	ammonium hyrdoxide
	2000 lbs	Calcium Hydroxide (Hydrated Lime)
	7200 ga.	Sodium Hydroxide (Caustic Soda)
		Other (specify)
	45 ga.	Potassium Hydroxide
		Metals and their compounds
		Antimony
		Barium
		Beryllium
		Cadmium
		Chromium
		Copper
		Lead
		Manganese
	1 lbs	Mercury
		Nickel
		Selenium
		Silver
		Zinc
		Other (specify)
	150 lbs	Arsenic
	50 lbs	Gallium

Stored	Used	Organic Solvents
	425 ga.	Acetone
	1000 "	Alcohols
	750 "	Chlorinated Hydrocarbons
	20 "	Ketones
	20 "	Petroleum Solvents
	10 "	Toluene
	90 "	Xylene
	***	Other (specify)
		Other Organics
		Aldehydes
		Algaecides
		Formaldehydes
		Herbicides
		Pesticides
	350 ga	Phenols (Total stripper usage
		Surfactants strippers contain
		Other (specify) a small amount of Phenol)
		Misc. Chemicals
		Boron
		Chlorine
	20 ga	Cyanides
		Dyes
		Fluorides
	300 ga	Peroxides
		Sulfides
		Other (specify)
	300 lbs	Potassium Ferricyanide

Reference #22

G. PLEASE PLACE A CHECK BESIDE ANY OF THE PRIORITY POLLUTANTS LISTED BELOW (EPA PRIORITY POLLUTANTS) WHICH ARE EITHER USED IN YOUR PROCESS, GENERATED IN YOUR PROCESS, OR ARE STORED ON YOUR PREMISES:

____ Acenaphthene*
____ Acrolein*
____ Acrylonitrile*
____ Benzene*
____ Benzidine*
____ Carbon tetrachloride* (tetrachloromethane)

Chlorinated benezenes* (other than dichlorobenzenes):

____ Chlorobenezene
____ 1,2,4-trichlorobenzene
____ Hexachlorobenzene

Chlorinated ethanes* (including 1,2-dichloroethane, 1,1,1-trichloroethane and hexachloroethane):

____ 1,2-dichloroethane
X 1,1,1-trichloroethane
____ Hexachloroethane
____ 1,1-dichloroethane
____ 1,1,2-trichloroethane
____ 1,1,2,2-tetrachloroethane
____ Chloroethane

Chloroalkyl ethers (chloro-* methyl, chloroethyl, and mixed ethers):

____ Bis(chloromethyl) ether
____ Bis(2-chloroehtyl) ether
____ 2-chloroehtyl vinyl ether (mixed)

Chlorinated naphtalene*

____ 2-chloronaphthalene

Chlorinated phenols* (other than those listed elsewhere; includes trichlorophenols and chlorinated cresols)

____ 2,4,6-trichlorophenol
____ Parachlorometa cresol

____ Chloroform (trichloromethane)*
____ 2-chlorophenol*

Dichlorobenzenes

____ 1,2-dichlorobenzene
____ 1,3-dichlorobenzene
____ 1,4-dichlorobenzene

Dichlorobenzidine*

____ 3,3'-dichlorobenzidine

Dichloroethylenes* (1,1-dichloroethylene and 1,2-dichloroethylene)

____ 1,1-dichloroehtylene
____ 1,2-trans-dichloroethylene

____ 2,4-dichlorophenol*

Dichloropropane and dichloropropene*

____ 1,2-dichloropropane
____ 1,3-dichloropropylene (1,3-dichloropropene)

____ 2,4-dimethylphenol*

Dinitrotoluene*

____ 2,4-dinitrotoluene
____ 2,6-dinitrotoluene

____ 1,2-diphenylhydrazine*
____ Ethylbenzene*
____ Fluoranthene*

Haloethers* (other than those listed elsewhere):

____ 4-chlorophenyl phenyl ether
____ 4-bromophenyl phenyl ether
____ Bis(2-chloroisoprophyl) ether
____ Bis(2-chloroethyoxy) methane

Halomethanes* (other than those listed elsewhere):

X Methylene chloride (dichloromethane)
____ Methyl chloride (chloromethane)
____ Methyl bromide (bromomethane)
X Bromoform (tribromomethane)
____ Dichlorobromomethane
____ Trichlorofluoromethane
____ Dichlorodifluoromethane
____ Chlorodibromomethane

____ Hexachlorobutadiene*
____ Hexachlorocyclopentadiene*
____ Isophorone*
____ Naphthalene*
____ Nitrobenzene*

Nitrophenols* (including 2,4-dinitrophenol and dinitrocresol):

____ 2-nitrophenol
____ 4-nitrophenol
____ 2,4-dinitrophenol*
____ 4,6-dinitro-o-cresol

*Specific compounds and chemical classes as listed in the Consent Decree

ATTACHMENT

* All of the Information in this report includes estimated data for 370 West Tribmle Road (HP bldg. 91), which is currently under construction. Occupancy of this building should begin between Mid-1983 and early 1984.

** Storage will vary considerably. All chemicals are used in small laboratory quantities. No bulk storage tanks. The quantities of the most commonly used chemicals on hand during a recent chemical survey are indicated on the attached.

*** Many cheimcal mixtures such as photoresist, strippers, ect. contain organic solvents.

Nitrosamines*

___ N-nitrosodimethylamine
___ N-nitrosodiphenylamine
___ N-nitrosodi-n-propylamine

___ Pentachlorophenol*
X Phenol* (small quantity in some photo-resist strippers)

Phthalate esters*

___ Bis(2-Ethylhexyl) phthalate
___ Butyl benzyl phthalate
___ Di-n-butyl phthalate
___ Di-n-octyl phthalate
___ Diethyl phthalate
___ Dimethyl phthalate

Polynuclear aromatic hydrocarbons*

___ Benzo(a)anthracene (1,2-benzanthracene)
___ Benzo(a)pyrene (3,4-benzopyrene)
___ 3,4-benzofluoranthene
___ Benzo(k)fluoranthene (11,12-benzofluoranthene)
___ Chrysene
___ Acenaphthylene
___ Anthracene
___ Benzo(ghi)perylene (1,12-benzoperylene)
___ Fluorene
___ Phenanthrene
___ Dibenzo(a,h)anthracene (1,2,5,6-dibenzanthracene)
___ Indeno (1,2,3-cd)pyrene (2,3-O-phenylenepyrene)
___ Pyrene

___ Tetrachloroethylene*
X Toluene*
X Trichloroethylene*
___ Vinyl chloride* (chloroethylene)

Pesticides and Metabolites:

___ Aldrin*
___ Dieldrin*
___ Chlordane* (technical mixture & metabolites)

DDT & Metabolites*

___ 4,4'-DDT
___ 4,4'-DDE (p,p'-DDX)
___ 4,4'-DDD (p,p'-TDE)

Endosulfan & Metabolites*

___ a-endosulfan-Alpha
___ b-endosulfan-Beta
___ Endosulfan sulfate

Endrin & Metabolites*

___ Endrin
___ Endrin aldehyde

Heptachlor & Metabolites*

___ Heptachlor
___ Heptachlor epoxide

Hexachlorocyclohexane (all isomers)

___ a-BHC-Alpha
___ b-BHC-Beta
___ r-BHC(lindane)-Gamma
___ g-BHC-Delta

Polychlorinated biphenyls (PCB's)

___ PCB-1242 (Arochlor 1242)
___ PCB-1254 (Arochlor 1254)
___ PCB-1221 (Arochlor 1221)
___ PCB-1232 (Arochlor 1232)
___ PCB-1248 (Arochlor 1248)
___ PCB-1260 (Arochlor 1260)
___ PCB-1016 (Arochlor 1016)

___ Toxaphene*
___ Antimony* (Total)
X Arsenic* (Total)
___ Asbestos* (Fibrous)
___ Beryllium* (Total)
___ Cadmium* (Total)
___ Chromium* (Total)
___ Copper* (Total)
___ Cyanide* (Total)
___ Lead* (Total)
X Mercury* (Total)
___ Nickel* (Total)
___ Selenium* (Total)
___ Silver* (Total)
___ Thallium* (Total)
___ Zinc* (Total)
___ 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)***

*Specific compounds and chemical classes as listed in the Consent Decree.

***This compound was specifically listed in the Consent Decree. Because of the extreme toxicity (TCDD), we are recommending that laboratories NOT acquire analytical standard for this compound.

H. LIST BELOW OTHER MATERIALS OR CHEMICALS USED FOR WHICH CHEMICAL COMPOSITION IS UNKNOWN:

DISTRIBUTOR (NAME & ADDRESS)	TRADE NAME

I. WATER ACCOUNT AND/OR WELL NUMBER(S) 2140-0800-09

J. WATER USAGE AND DISCHARGE (ATTACH WATER BILLS OR EFFLUENT CHARTS):
(see also Section O)

	Used	Discharged	
Annual Daily Average	264,320	257,840	gal/day
Max. Month, Average	345,968	339,488	gal/day
Min. Month, Average	198,430	191,950	gal/day
Cooling Water:			
Recirculated	1,008,000	0	gal/day
Discharged after 1 pass	3,456	3,456	gal/day
Storm Drain	5,760	5,760	gal/day

K. CHARACTERISTICS OF WASTEWATER DISCHARGED TO SEWERS PRIOR TO PRETREATMENT
(check those that apply)

	Flammable		Particles larger than 3/4"
X	Toxic Substances	X	Suspended Solids
X	Acidic, pH <6.0	X	Biochemical Oxygen Demand
	Caustic, pH >10.0	X	Ammonia
	Heavy Metals		Grease
	Solvents		Washdown or Clean up Water
	Petroleum-based oils		Temperature over 150°F
	Water-soluble (emulsified) oils		Other (specify)
X	Unpolluted Water		
	Rainwater or Dilution Water		
	Blowdown or Bleed Water		

sanitary waste

L. CHECK WHICH OF THE FOLLOWING PRETREATMENT SYSTEMS ARE USED:

	Clarifier or Interceptor	X	Solvent Separation
	Screen, Filter	X	Spill Protection
	Centrifuge		Rainwater Diversion
	Cyclone		Grinder, Hammermill, Disposal
	Grit Removal		Air Flotation
X	Grease or Oil Removal		Flow Equalization
X	Chemical Treatment	X	Export or Hauling
	Biological Treatment		Other (specify)
X	pH Control		

M. NUMBER OF SAMPLING/MONITORING LOCATIONS One

N. DESCRIBE YOUR SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN: (include attachments as necessary)

See enclosed emergency response procedures.

O. FOR THOSE PROCESSES OR OPERATIONS WHICH PRODUCT WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 1 (370 W. Trimble Rd.)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE EPITaxial Manufacturing

BRIEF CHARACTERIZATION OF WASTE Mixture of xylene, isopropyl alcohol, methanol, acetone, n-butyl acetate

ANNUAL WASTE PRODUCTION: _____ TONS/YR. 1300 GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ____ SEASONAL ____ OCCASIONAL X CONTINUAL

____ OTHER (SPECIFY) _____

P. WASTE COMPOSITION:

AVERAGE PERCENT SOLIDS <1 % pH RANGE 5 TO 9

PHYSICAL STATE: X LIQUID ____ SLURRY ____ SLUDGE ____ SOLID

____ OTHER (SPECIFY) _____

HAZARDOUS PROPERTIES OF WASTE: X FLAMMABLE ____ TOXIC ____ REACTIVE

____ EXPLOSIVE ____ INFECTIOUS ____ CORROSIVE

____ OTHER (SPECIFY) _____

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ____ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER Solvent Service, Inc.

1021 Berryessa Rd. (Street) San Jose (City)

Calif (State) 95133 (Zip Code) (408) 286-6446 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ____ ON SITE X OFF SITE

WASTE IS: X RECLAIMED ____ TREATED ____ LAND DISPOSED ____ INCINERATED

____ OTHER (SPECIFY) _____

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Solvent Service Company

FACILITY OPERATOR Solvent Service Company

FACILITY LOCATION 1021 Berryessa Rd. (Street) San Jose (City)

Calif. (State) 95133 (Zip Code) (408) 286-6446 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ____ DRUM ____ ROLL-OFF CONTAINER ____ TANK ____ LAGOON

____ OTHER (SPECIFY) _____

TYPICAL LENGTH OF TIME WASTE STORED: ____ DAYS ____ WEEKS ____ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ____ YES ____ NO

SURFACE DRAINAGE COLLECTION? ____ YES ____ NO

O. FOR THOSE PROCESSES OR OPERATIONS WHICH PRODUCE WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 2 (370 W. Trimble rd. - HP Bldg. 91)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE Miscellaneous degreasing operations

BRIEF CHARACTERIZATION OF WASTE Halogenated solvents - freons (TF, TMC) 1, 1, 1, Trichloroethane

ANNUAL WASTE PRODUCTION: _____ TONS/YR. 12,000 GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ____ SEASONAL ____ OCCASIONAL X CONTINUAL

____ OTHER (SPECIFY) _____

P. WASTE COMPOSITION:

AVERAGE PERCENT SOLIDS < 1 % pH RANGE 5 TO 8

PHYSICAL STATE: X LIQUID ____ SLURRY ____ SLUDGE ____ SOLID

____ OTHER (SPECIFY) _____

HAZARDOUS PROPERTIES OF WASTE: ____ FLAMMABLE ____ TOXIC ____ REACTIVE

____ EXPLOSIVE ____ INFECTIOUS ____ CORROSIVE

____ OTHER (SPECIFY) _____

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ____ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER: Solvent Service Inc.

1021 Berryessa Rd. (Street) San Jose (City)

Calif. (State) 95133 (Zip Code) (408) 286-6446 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ____ ON SITE X OFF SITE

WASTE IS: X RECLAIMED ____ TREATED ____ LAND DISPOSED ____ INCINERATED

____ OTHER (SPECIFY) _____

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Solvent Service Company

FACILITY OPERATOR Solvent Service Company

FACILITY LOCATION 1021 Berryessa Rd. (Street) San Jose (City)

Calif. (State) 95133 (Zip Code) (408) 256-6446 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ____ DRUM ____ ROLL-OFF CONTAINER ____ TANK ____ LAGOON

____ OTHER (SPECIFY) _____

TYPICAL LENGTH OF TIME WASTE STORED: ____ DAYS ____ WEEKS ____ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ____ YES ____ NO

SURFACE DRAINAGE COLLECTION? ____ YES ____ NO

O. FOR THOSE PROCESSES OR OPERATIONS WHICH PRODUCE WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 3 (370 W. Trimble Rd. - HP Bldg. 91)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE
Photoresist removal

BRIEF CHARACTERIZATION OF WASTE
Stripper - J100, 712D

ANNUAL WASTE PRODUCTION: _____ TONS/YR. 3000 GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ___ SEASONAL ___ OCCASIONAL X CONTINUAL
___ OTHER (SPECIFY)

P. WASTE COMPOSITION:

AVERAGE PERCENT SOLIDS < 1 % pH RANGE < 2 TO _____

PHYSICAL STATE: X LIQUID ___ SLURRY ___ SLUDGE ___ SOLID
___ OTHER (SPECIFY)

HAZARDOUS PROPERTIES OF WASTE: ___ FLAMMABLE ___ TOXIC ___ REACTIVE
___ EXPLOSIVE ___ INFECTIOUS X CORROSIVE
___ OTHER (SPECIFY)

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ___ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER: I.T. Transportation Corporation

3010 Zanker Rd. (Street) San Jose (City)
Calif. (State) 95131 (Zip Code) (408) 263-7250 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ___ ON SITE X OFF SITE

WASTE IS: ___ RECLAIMED ___ TREATED X LAND DISPOSED ___ INCINERATED
___ OTHER (SPECIFY) after solidification

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Kettleman Hills

FACILITY OPERATOR Chemical Waste Management, Inc.

FACILITY LOCATION P.O. Box 1104 - 430 W. Elm Ave. Coalinga
Street City
Calif (State) 93210 (Zip Code) (209) 935-2043 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ___ DRUM ___ ROLL-OFF CONTAINER ___ TANK ___ LAGOON
___ OTHER (SPECIFY)

TYPICAL LENGTH OF TIME WASTE STORED: ___ DAYS ___ WEEKS ___ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ___ YES ___ NO

SURFACE DRAINAGE COLLECTION? ___ YES ___ NO

O. FOR THOSE PROCESSES OR OPERATIONS WHICH PRODUCE WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 4 (370 W. Trimble Rd. - HP Bldg. 91)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE

Material Growth

BRIEF CHARACTERIZATION OF WASTE

Solid waste with 1% arsenic

ANNUAL WASTE PRODUCTION: 8 TONS/YR. _____ GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ____ SEASONAL ____ OCCASIONAL X CONTINUAL

____ OTHER (SPECIFY) _____

P. WASTE COMPOSITION:

AVERAGE PERCENT SOLIDS _____ % pH RANGE _____ TO _____

PHYSICAL STATE: ____ LIQUID ____ SLURRY ____ SLUDGE X SOLID

____ OTHER (SPECIFY) _____

HAZARDOUS PROPERTIES OF WASTE: ____ FLAMMABLE X TOXIC ____ REACTIVE

____ EXPLOSIVE ____ INFECTIOUS ____ CORROSIVE

____ OTHER (SPECIFY) _____

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ____ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER: I.T. Transporation Corporation

3010 Zanker Rd. (Street) San Jose (City)

Calif. (State) 95131 (Zip Code) (408 263-7250 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ____ ON SITE X OFF SITE

WASTE IS: ____ RECLAIMED ____ TREATED X LAND DISPOSED ____ INCINERATED

____ OTHER (SPECIFY) _____

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Kettleman Hills

FACILITY OPERATOR Chemical Waste Management, Inc.

FACILITY LOCATION 430 W. Elm Ave. (Street) Coalinga (City)

Calif. (State) 93210 (Zip Code) (209) 935-2043 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ____ DRUM ____ ROLL-OFF CONTAINER ____ TANK ____ LAGOON

____ OTHER (SPECIFY) _____

TYPICAL LENGTH OF TIME WASTE STORED: ____ DAYS ____ WEEKS ____ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ____ YES ____ NO

SURFACE DRAINAGE COLLECTION? ____ YES ____ NO

O. FOR [illegible] OPERATIONS WHICH PRODUCE WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 5 (370 W. Trimble Rd. - HP Bldg. 91)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE Epitaxial growth - lapping

BRIEF CHARACTERIZATION OF WASTE Potassium ferricyanide

ANNUAL WASTE PRODUCTION: 2 TONS/YR. _____ GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ____ SEASONAL ____ OCCASIONAL X CONTINUAL

____ OTHER (SPECIFY) _____

P. WASTE COMPOSITION:

AVERAGE PERCENT SOLIDS _____ % pH RANGE _____ TO _____

PHYSICAL STATE: ____ LIQUID ____ SLURRY ____ SLUDGE X SOLID

____ OTHER (SPECIFY) _____

HAZARDOUS PROPERTIES OF WASTE: ____ FLAMMABLE X TOXIC ____ REACTIVE

____ EXPLOSIVE ____ INFECTIOUS ____ CORROSIVE

____ OTHER (SPECIFY) _____

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ____ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER: I.T. Transportation Corporation

3010 Zanker Rd. (Street) San Jose (City)

Calif (State) (5131 (Zip Code) (408) 263-7250 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ____ ON SITE X OFF SITE

WASTE IS: ____ RECLAIMED ____ TREATED X LAND DISPOSED ____ INCINERATED

____ OTHER (SPECIFY) _____

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Kettleman Hills

FACILITY OPERATOR Chemical Waste Management, Inc.

FACILITY LOCATION 430 W. Elm Ave. (Street) Coalinga (City)

Calif. (State) 93210 (Zip Code) (209) 935-2034 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ____ DRUM ____ ROLL-OFF CONTAINER ____ TANK ____ LAGOON

____ OTHER (SPECIFY) _____

TYPICAL LENGTH OF TIME WASTE STORED: ____ DAYS ____ WEEKS ____ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ____ YES ____ NO

SURFACE DRAINAGE COLLECTION? ____ YES ____ NO

O. FOR THOSE PROCESSES OR OPERATIONS WHICH PRODUCE WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 6 (350 W. Trimble Rd. - HP Bldg. 90)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE

Microwave Semiconductor wafer fabrication process *

BRIEF CHARACTERIZATION OF WASTE Mixed solvent waste - isopropyl alcohol, 1, 1, 1, Trichloroethane, Trichloroethylene, Acetone, Methanol, Bulyl Acetate, Oil -

ANNUAL WASTE PRODUCTION: _____ TONS/YR. 6,000 GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ____ SEASONAL ____ OCCASIONAL X CONTINUAL

____ OTHER (SPECIFY) _____

P. WASTE COMPOSITION:

AVERAGE PERCENT SOLIDS < 1 % pH RANGE 5 TO 9

PHYSICAL STATE: X LIQUID ____ SLURRY ____ SLUDGE ____ SOLID

____ OTHER (SPECIFY) _____

HAZARDOUS PROPERTIES OF WASTE: X FLAMMABLE ____ TOXIC ____ REACTIVE

____ EXPLOSIVE ____ INFECTIOUS ____ CORROSIVE

____ OTHER (SPECIFY) _____

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ____ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER: Solvent Service, Inc.

1021 Gerryessa Rd. (Street) San Jose (City)

Calif. (State) 95133 (Zip Code) (408) 286-6446 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ____ ON SITE X OFF SITE

WASTE IS: X RECLAIMED ____ TREATED ____ LAND DISPOSED ____ INCINERATED

____ OTHER (SPECIFY) _____

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Solvent Service Company

FACILITY OPERATOR Solvent Service Company

FACILITY LOCATION 1021 Berryessa Rd. (Street) San Jose (City)

Calif (State) 95133 (Zip Code) (408 286-6446 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ____ DRUM ____ ROLL-OFF CONTAINER ____ TANK ____ LAGOON

____ OTHER (SPECIFY) _____

TYPICAL LENGTH OF TIME WASTE STORED: ____ DAYS ____ WEEKS ____ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ____ YES ____ NO

SURFACE DRAINAGE COLLECTION? ____ YES ____ NO

* Waste stream will be separated into flammable and halogenated in 1984.

O. FOR THOSE PROCESSES OR OPERATIONS WHICH PRODUCE WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 7 (350 W. Trimble Rd. - HP Bldg. 90)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE

Photoresist removal

BRIEF CHARACTERIZATION OF WASTE

Strippers - J100, 7120, Microstrip

ANNUAL WASTE PRODUCTION: _____ TONS/YR. 800 GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ____ SEASONAL ____ OCCASIONAL X CONTINUAL

____ OTHER (SPECIFY) _____

P. WASTE COMPOSITION:

AVERAGE PERCENT SOLIDS < 1 % pH RANGE < 2 TO ____

PHYSICAL STATE: X LIQUID ____ SLURRY ____ SLUDGE ____ SOLID

____ OTHER (SPECIFY) _____

HAZARDOUS PROPERTIES OF WASTE: ____ FLAMMABLE ____ TOXIC ____ REACTIVE

____ EXPLOSIVE ____ INFECTIOUS X CORROSIVE

____ OTHER (SPECIFY) _____

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ____ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER: I.T. Transportation Corporation

3010 Zanker Rd. (Street) San Jose (City)

Calif. (State) 95131 (Zip Code) (408) 263-7250 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ____ ON SITE X OFF SITE

WASTE IS: ____ RECLAIMED ____ TREATED X LAND DISPOSED ____ INCINERATED

____ OTHER (SPECIFY) after solidification

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Kettleman Hills

FACILITY OPERATOR Chemical Waste Management, Inc.

FACILITY LOCATION 430 W. Elm St. (Street) Coalinga (City)

Calif (State) 93210 (Zip Code) (209) 935-2043 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ____ DRUM ____ ROLL-OFF CONTAINER ____ TANK ____ LAGOON

____ OTHER (SPECIFY) _____

TYPICAL LENGTH OF TIME WASTE STORED: ____ DAYS ____ WEEKS ____ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ____ YES ____ NO

SURFACE DRAINAGE COLLECTION? ____ YES ____ NO

O. FOR THOSE PROCESSES OR OPERATIONS WHICH PRODUCE WASTES WHICH ARE NOT DISCHARGED INTO CITY OR STORM SEWERS OR TO SURFACE WATERS, COMPLETE THE FOLLOWING (USE SEPARATE FORM FOR EACH WASTE STREAM):

WASTE STREAM NO. 8 (350 & 370 W. Trimble Rd. - HP Bldgs. 90 & 91)

DESCRIPTION OF PROCESS OR OPERATION PRODUCING WASTE

Semiconductor wafer fabrication

BRIEF CHARACTERIZATION OF WASTE

Miscellaneous laboratory waste (see enclosed 1981 annual report)

ANNUAL WASTE PRODUCTION: 2.5 TONS/YR. _____ GAL./YR.

FREQUENCY OF WASTE PRODUCTION: ____ SEASONAL ____ OCCASIONAL X CONTINUAL

____ OTHER (SPECIFY) _____

P. WASTE COMPOSITION: (See enclosed 1981 annual report)

AVERAGE PERCENT SOLIDS _____ % pH RANGE _____ TO _____

PHYSICAL STATE: ____ LIQUID ____ SLURRY ____ SLUDGE ____ SOLID

____ OTHER (SPECIFY) _____

HAZARDOUS PROPERTIES OF WASTE: ____ FLAMMABLE ____ TOXIC ____ REACTIVE

____ EXPLOSIVE ____ INFECTIOUS ____ CORROSIVE

____ OTHER (SPECIFY) _____

Q. TRANSPORTATION:

WASTE HAULED OFF-SITE BY: ____ YOU X OTHERS

NAME & LIC. NO. OF WASTE HAULER: I.T. Transportation Corporation

3010 Zanker Rd. (Street) San Jose (City)

Calif. (State) 95131 (Zip Code) (408) 263-7250 (Phone)

R. TREATMENT AND DISPOSAL:

TREATMENT OR DISPOSAL: ____ ON SITE X OFF SITE

WASTE IS: ____ RECLAIMED ____ TREATED X LAND DISPOSED ____ INCINERATED

____ OTHER (SPECIFY) _____

OFF-SITE FACILITY RECEIVING WASTE:

NAME OF FACILITY Kettleman Hills

FACILITY OPERATOR Chemical Waste Management, Inc.

FACILITY LOCATION 430 W. Elm St. (Street) Coalinga (City)

Calif. (State) 93210 (Zip Code) (209) 935-2043 (Phone)

S. ON-SITE STORAGE FOR GREATER THAN 90 DAYS:

METHOD: ____ DRUM ____ ROLL-OFF CONTAINER ____ TANK ____ LAGOON

____ OTHER (SPECIFY) _____

TYPICAL LENGTH OF TIME WASTE STORED: ____ DAYS ____ WEEKS ____ MONTHS

TYPICAL VOLUME OF WASTE STORED: _____ TONS _____ GALLONS

IS STORAGE SITE DIKED? ____ YES ____ NO

SURFACE DRAINAGE COLLECTION? ____ YES ____ NO

T. EXPANSION PLANS (INDICATE ANY PLANS THAT WOULD AFFECT THE QUANTITY OR QUALITY OR YOUR WASTEWATER INCLUDING INCREASED OR PROJECTED CHANGES IN MANUFACTURING RATES):

N/A

U. USE THE FOLLOWING SPACE FOR ANY FURTHER EXPLANATIONS THAT MAY BE NECESSARY:

This report includes anticipated data for 370 W. Trimble Rd. (HP Bldg. 91), which is currently under contruction. Occupancy and start up process for this building will not begin until mid-1983 or early 1984. For current operating information, see your copy of "Industrial Wastewater Questionnaire" which was provided to you on February 13, 1981. Enclosures:

1. Our check in the amount of $500 to cover required fee.
2. Inventory of most commonly used chemicals at 350 W. Trimble Rd. (HP Bldg. 90) with amounts on hand during survey.
3. Chemical products inventory (current) of all chemicals on hand at 350 W. Trimble Rd. (HP Bldg. 90). This inventory is updated daily.
4. Copy of current Emergency Response procedures.
5. 1981 Annual Report for 350 W. Trimble Rd. (HP Bldg. 90)
6. Required drawings for 370 W. Trimble Rd. (HP Bldg. 91)

The information contained in this Questionnaire is familiar to me and, to the best of my knowledge and belief, accurate and complete.

Prepared by: Jerry T. Thorn Manager Safety & Environmental Engineering **Date** 9/13/82
(Signature and Title)

Executive Officer: Earl Sellers General Mgr. **Date** 9/13/82
(Signature and Title)

PART II - PERMIT (TO BE COMPLETED BY SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT)

Hewlett Packard Co.
360 - 370 W. Trimble Rd.
San Jose, CA 95131

PERMIT NO. SJ-003A
EFFECTIVE DATE Oct 3, 1982
EXPIRATION DATE Oct. 3, 1985

A. SELF-MONITORING REQUIREMENTS:

1. EQUIPMENT REQUIRED Time proportional automatic sampler - 5 gal capacity

2. TESTING REQUIRED Semi-annual test for fluoride, phenol, arsenic and 96-hour TLm an 8-hour composite sampler (8am - 4pm)

B. TIMETABLE OF COMPLIANCE - ANY DEVIATION FROM THE WASTEWATER STRENGTH OR CONDITIONS SET FORTH HEREIN MAY RESULT IN TERMINATION OF PERMIT.

Limiting Constituent	Unit of Measurement	Maximum Allowable Discharge						
		Present	Date	Dis.	Date	Dis.	Date	Dis.
Cadmium	mg/L							
Chromium	mg/L							
Copper	mg/L							
Lead	mg/L							
Nickel	mg/L							
Zinc	mg/L							
Cyanide	mg/L	1.0						
Fluoride	mg/L	10.0						
Silver	mg/L	1.0						
TLm	%	50						
Phenol	mg/L	30						

C. REPORTING REQUIREMENTS: Results of tests required under A-2 due July and December of each year.

D. OTHER REQUIREMENTS: Report any significant change in flow or wastewater characteristics. Report all accidental discharges as requires under San Jose Municipal Code section 15.12.140

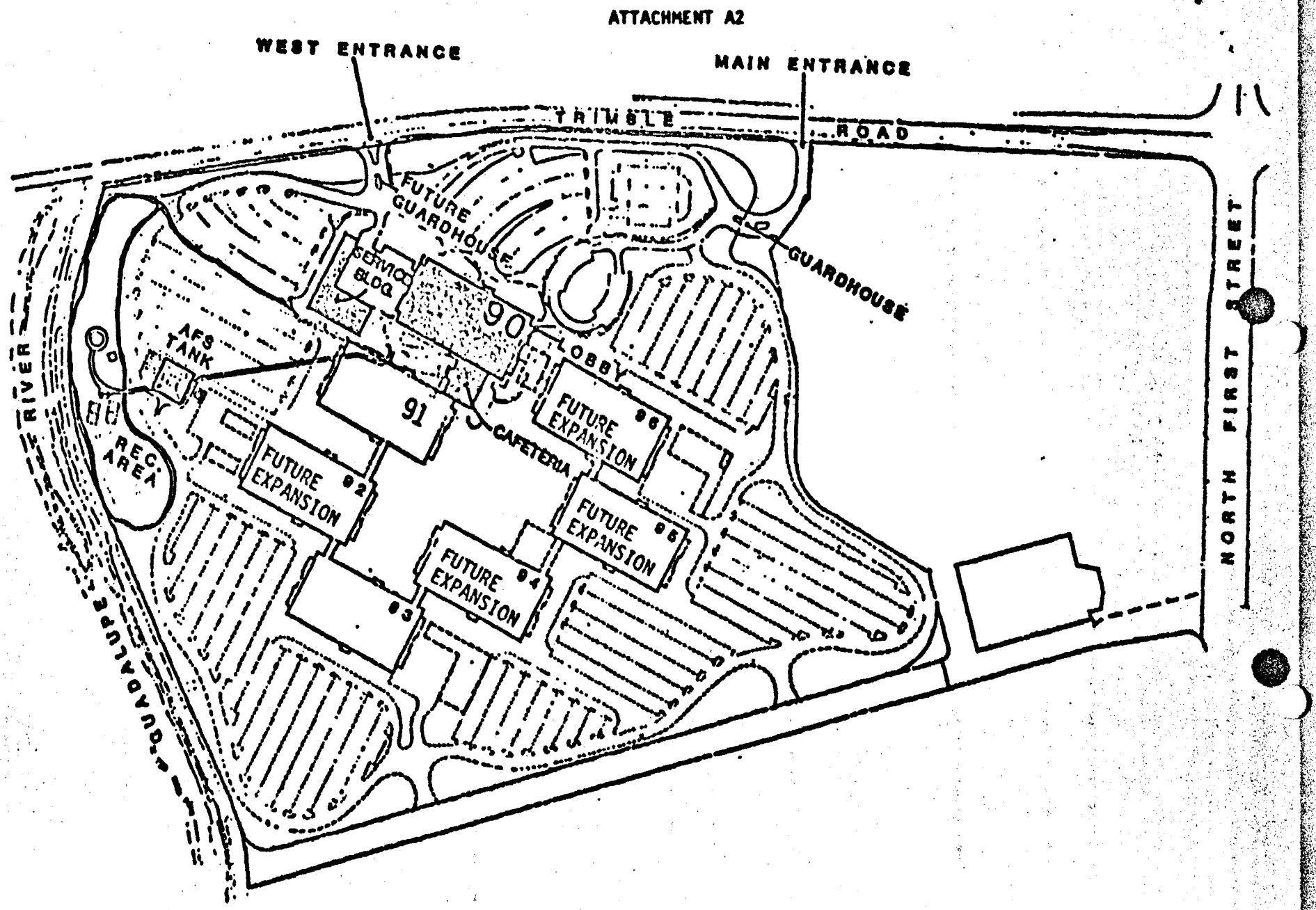
ALL PERMITS ARE SUBJECT TO THE ABOVE CONDITIONS. ANY SUBSTANTIAL CHANGE IN QUANTITY OR QUALITY OF DISCHARGE AS REPORTED IN THE PERMIT APPLICATION(S) MUST BE REPORTED. IN THE EVENT OF SUCH CHANGE, A NEW APPLICATION MAY BE REQUIRED.

E. SPECIAL CONDITIONS

F. AGENCY APPROVAL

NAME	TITLE	DATE
David McCann [illegible]	Sr. Industrial Waste Inspector	10-3-82
[illegible signature]	Director of Water Pollution Control	12-22-82

ATTACHMENT A2



HEWLETT-PACKARD CO.
M.S.D. DIVISION

SITE PLAN

FACILITY			
SAMPLE DATE	1/13-4		
GRAB OR COMP.	C-24		
pH	01 8.6	15.0-10.5	
#pH ABOVE	0		
#pH BELOW	0		
PARAMETER; MG/L			
ALUMINUM	1.2		
AMMONIA	5.5		
ARSENIC	(0.010	1.0	
BERYLLIUM	(0.10	1.0	
CADMIUM	(0.010	0.7	
CHROMIUM HEX.	N/A		
CHROMIUM TOTAL	(0.050	1.0	
COPPER	0.13	2.7	
CYANIDES TOTAL	(0.050	1.0	
FLUORIDES	3.3	10.0	
IRON	(0.10		
LEAD	(0.050	0.4	
MANGANESE	(0.10	0.5	
NICKEL	(0.10	2.6	
PHENOLS	(0.10	30.0	
PHOSPHORUS	N/A		
SILVER	(0.050	0.7	
TIN	(0.25		
SUSP. SOLIDS	N/A		
ZINC	(0.10	2.6	

#=LIMIT EXCEEDED

##=LIMIT EXCEEDED TWO CONSECUTIVE MONTHS

LABORATORY MANAGER

REQUEST FOR HAZARDOUS WASTE FACILITY PERMIT VARIANCE

California Department of Health Services

Hazardous Waste Management Branch

I would like to request a variance from the Hazardous Waste Facility Permit requirements of the California State Department of Health Services.

I am requesting a variance for the following type of facility:

(X) Container storage — For Potassium Cyanide Solution and Lab-Pack Material, only, in order to store these wastes for more than 90 days.

( ) Tank storage

( ) located above ground

( ) located below ground

( ) A totally enclosed treatment facility.

( ) An elementary neutralization unit.

( ) A facility that discharges directly to a POTW.

( ) Other (specify) _____.

This facility is owned/operated by HEWLETT-PACKARD COMPANY
COMPONENTS, SAN JOSE SITE.

and is located at 350/370 WEST TRIMBLE ROAD
SAN JOSE, CA 95131-1008.

I am basing my request for a variance on the following checked (X) sections of Title 22, California Administrative Code:

( ) 66310(a)(1) The hazardous waste at my facility is insignificant as a potential hazard to humans, domestic livestock or wildlife because of its:

(X) small quantity; Of Potassium Cyanide Solution and Lab-Pack Material, only

( ) low concentration; and/or

( ) physical or chemical characteristics.

( ) 66310(a)(2) The hazardous waste at my facility is handled, processed or disposed of pursuant to regulations of another governmental agency:

My firm is regulated by the following agency: _____

A copy of the applicable permit is attached.

Reference # 23

I am attaching information and drawings as outlined in Attachment A in support of this variance request. For any facilities involving underground tanks, I have attached information on a proposed groundwater monitoring program as outlined in Attachment B.

I understand that any variance from the Hazardous Waste Facility Permit requirements of the Department of Health Services, if granted, does not exempt my firm from any other applicable laws and regulations governing the management of hazardous wastes.

I certify that all information submitted with regards to this variance request is true, accurate and complete.

HAZEL L. KELLY
(Applicant, Typed or Print)

Hazel L. Kelly
(Signature)

HEWLETT-PACKARD COMPANY
ATTN: HAZEL KELLY, 91/BC
350 WEST TRIMBLE ROAD
SAN JOSE, CA 95131-1008
(Mailing Address)

HAZARDOUS MATERIAL CONTROL COORDINATOR
(Title)

(408) 263-7500 X2401
(Telephone Number)

AUGUST 26, 1985
(Date)

N/A
Interim Status Document No.
If Applicable